

STIC Search Report Biotech-Chem Library

STIC Database triacking North

TO: Sumesh Kaushal

Location: REM-2B85&2C70

Art Unit: 1633

Saarah Naras

Monday, August 08, 2005

Case Serial Number: 10/787382

From: Alex Waclawiw

Location: Biotech-Chem Library

Rem 1A71

Phone: 272-2534

Alexandra.waclawiw@uspto.gov

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Result
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

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Maximum Match 100%
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US-09-556-818-1
US-09-556-818-1
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Sequence 14, Appl
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Sequence 15, Appl
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Sequence 40, Appl
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ALIGNMENTS

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GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee

APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Wonderling, Ramani S.

ITILE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2

CURRENT PILING DATE: 1999-12-01

EARLIER APPLICATION NUMBER: 09/322,409

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER PILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 174

SOFTWARE: Patentin Ver. 2.0
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US-09-322-409-81
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APPLICANT: Yang, Shunin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 05/087,306
EARLIER APPLICATION NUMBER: 05/087,306
EARLIER APPLICATION NUMBER: 05/087,306
EARLIER APPLICATION PROPERTY OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
  Query Match
                                                                                                                                  SEQ ID NO 81
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
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                                                                 ORGANISM: Canis
                                                                                        TYPE:
                                                                                                             LENGTH: 134
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100.0%; Pred. No. 5e-81;
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CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 86
LENGTH: 115
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SOFTMARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 134
TYPE: PAT
ORGANISM: Canis familiaris
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APPLICANT: IDEXX LABORATORIES
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Patent No. 6471957
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                                                                                                                                                APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING TITLE OF INVENTION: CANINE INTERLEUKIN 5 FILE REFERENCE: 03604001700US00
                                                                                                                                                                                                                                            APPLICANT: Sim, Gek-Kee APPLICANT: Yang, Shumin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                              121
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                                                                                                                                                                                                                                                                                                                     Application US/09322409
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Pred. No. 7.1e-80;
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TITLE OF INVENTION: ACID MOLECULES, AND USES THE
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
CONTINUES: DECITION UNDER: 05-29
NUMBER: DECITION UNDER: 05-29
                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
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GENERAL INFORMATION:
APPLICANT: Sim, Gek-Ree
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: WONDERLING AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-451-527-86
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US-09-322-409-86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. SEQ ID NO 86
                                                                                                                                                                                                                                                                                                                         Sequence 13, Application US/08284393B Patent No. 5696234
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Best Local Similarity
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Best Local Similarity
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ORGANISM: Canis familiaris
COUNTRY: USA
ZIP: 94304-1104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                             APPLICANT: Zurawski, Sandra M.
APPLICANT: Zurawski, Gerard
TITLE OF INVENTION: MUTEINS OF MAMMALIAN CYTOKINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH: 115
                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: DNAX Rese
                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                        STREET: 901 Califo
CITY: Palo Alto
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09451527
                                                                                                                                         B: DNAX Research Institute
901 California Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87.6%; Score 610; DB 4;
100.0%; Pred. No. 4.1e-70;
tive 0; Mismatches 0;
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Best Local Similarity
APPLICATION NUMBER: US/08/759,628
FILING DATE: 05-DEC-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/008,574
PILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: Ching, Edwin P.
REGISTRATION NUMBER: 34,090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Altmann, Scott W.
APPLICANT: Rock, Fernando L.
APPLICANT: Bazan, J. Fernand.
APPLICANT: Kastelein, Robert
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                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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NAME: Ching, Edwin P.
REGISTRATION NUMBER: 34,090
REFERENCE/DOCKET NUMBER: DX(
                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MUTATIONAL VARIANTS OF MAMMLIAN PROTEINS NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
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APPLICATION NUMBER: US/08/284,393B
                                                                                                                                                                                                                                                                                                                                                     STREET: 901 California Avenue CITY: Palo Alto
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                            COUNTRY: USA
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CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                               ZIP: 94304-1104
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Kastelein, Robert A.
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SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                           DNAX Research Institute
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; OTHER INFORMATION: Interleukin
US-09-371-615A-7
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US-09-371-615A-7
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Matches
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SEQ ID NO 7
LENGTH: 134
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APPLICANT: IDEXX LABORATORIES
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Patent No. 6537781
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Best Local Similarity
                                                                                                                                                                                                                                                Query Match
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CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING TITLE OF INVENTION: CANINE INTERLEUKIN 5 FILE REFERENCE: 03604001700U900
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                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-852-9196
TELEPAX: 415-496-1200
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OTHER INFORMATION:
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121
                               121 VFLGVINTEWTPES 134
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                                                                                                                                                                                                                           h 61.8%; Score 430; DB 4; Length 134; Similarity 64.9%; Pred. No. 5.8e-47;
                                                                                                      QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIBRQKKRCAGERWRVTKFLDYLQ 120
EFLGVMNTEWIIES 134
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64.9%; Pred. No. 5.8e-47;
vative 17; Mismatches 30
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RESULT 9

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Best Local Similarity
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APPLICANT: Bolder Biotechnology, Inc.
APPLICANT: Bolder Biotechnology, Inc.
TITLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins
FILE REFERENCE: 41.52-1-PUS
CURRENT APPLICATION NUMBER: US/09/462,941
CURRENT FILING DATE: 2000-01-14
PRIOR APPLICATION NUMBER: 60/052,516
PRIOR PILING DATE: 1997-07-14
NUMBER OF SEQ ID NOS: 41
                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/284,393
FILING DATE: 01-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: Ching, Edwin P.
REGISTRATION NUMBER: 34,090
REFERENCE/DOCKET NUMBER: DX0389
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-852-9196
TELEFAX: 415-496-1200 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 134
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: PCT/US95/08950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Zurawski, Sandra M.
APPLICANT: Zurawski, Gerard
TITLE OF INVENTION: MUTEINS OF MAMMALIAN CYTOKINES
NUMBER OF SEQUENCES: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 901 California Avenue CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                   CLASSIFICATION:
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64.9%; Pred. No. 5.8e-47;
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RESULT 12
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; APPLICANT: Honjo, Tasuku;Takatsu, Kiyoshi;Severinson, Ev
; TITLE OF INVENTION: HUMAN B-CELL DIFFERENTIATION FACTOR
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NUMBER OF SEQUENCES: 2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/99,467
FILING DATE: 21-SEP-1987
                                                                                                                               APPLICANT: Honjo, Tasuku; Takatsu, Kiyoshi; Severinson, Eva
TITLE OF INVENTION: HUMAN B-CELL DIFFERENTIATION FACTOR AND
FROCESS OF PRODUCING SAID FACTOR
NUMBER OF SEQUENCES: 2
CURRENT APPLICATION DATA:
                                                                                                                                                                                                              Patent No. 5324640;
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Local Similarity 64.
                                                                                                      APPLICATION NUMBER: US/07/99,467 FILING DATE: 21-SEP-1987
                                                                           LENGTH: 134
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61.8%; Score 430; DB 6; Length 134; 64.9%; Pred. No. 5.8e-47; tive 17; Mismatches 30; Indels
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OTHER INFORMATION: Interleukin US-09-371-615A-8
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US-09-371-615A-8
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CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 8
LENGTH: 133
                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/556,818
CURRENT FILING DATE: 2000-04-21
NUMBER OF SEQ ID NOS: 65
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 115
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09556818 Patent No. 6746669
                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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Best Local Similarity
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APPLICANT: IDEXX LABORATORIES
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Patent No. 6537781
                                                                                                                                                                                                                                                                                                        APPLICANT: Klysner, Steen
TITLE OF INVENTION: Method For Down-Regulating
FILE REFERENCE: 0459-0428P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING TITLE OF INVENTION: CANINE INTERLEUKIN 5 FILE REFERENCE: 03604001700US00
FEATURE: NAME/KEY: DISULFID LOCATION: (44)
LOCATION: (44)
OTHER INFORMATION: Interchain disulphide bond to Cys-86 in SEQ
OTHER INFORMATION: NO:1
                                                                                                                          LENGTH: 115
TYPE: PRT
ORGANISM: Homo sapiens
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ORGANISM: Mus musculus
FEATURE:
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56.8%; Pred. No. 4.7e-40;
ative 21; Mismatches 34
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GRIERAL INC. GROUNATION:
GRIERAL INCOMNATION:
APPLICANT: Lopez, Angel
APPLICANT: Vadas, Matthew
APPLICANT: Shannon, Frances
APPLICANT: Shannon, Frances
APPLICANT: Bastiras, Stan
APPLICANT: Hey, Allan W
TITLE OF INVENTION INVEST: US/09/180,864
CURRENT APPLICATION NUMBER: US/09/180,864
CURRENT APPLICATION NUMBER: 08/591,438
PRIOR APPLICATION NUMBER: 08/591,438
PRIOR APPLICATION NUMBER: 08/591,438
PRIOR TILING DATE: 1994-07-28
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
LENGTH: 121
TYPE: PRT
ORGANISM: modified IL-5
US-09-180-864-2
Search completed: August
Job time : 35.9036 secs
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US-09-180-864-2
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; OTHER INFORMATION: Interchain disulphide bond to Cys-44 in SEQ ID; OTHER INFORMATION: NO:1
US-09-556-818-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 51.1%; Score 356; DB 4; Length 115; Best Local Similarity 62.5%; Pred. No. 1.4e-37; Matches 70; Conservative 16; Mismatches 26; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 EIPTSALVKRTLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG 69
                                                                                                                                                                               23 ENPMNRLVAETLILLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE 82
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Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-Q=/cgn2 1/USPTO_ppcol_p/US10787382/runat_04082005_084752_19292/app_query.fasta_1.590
-Q=/cgn2 1/USPTO_ppcol_p/US10787382/runat_04082005_084752_19292/app_query.fasta_1.590
-DB=GenEmbl -QFMT=fastap -SUPFIX=ryge -MINMAYCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXIEN=200000000
-USER=US10787382 @CGN 1 1 5783 @runat 04082005 0084752 19292 -NCPU=6 -ICPU=3
-NO MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Perfect score:
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   969
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696
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
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Copyright (c) 1993 - 2005 Compugen Ltd.
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ALIGNMENTS

	COMMENT	JOURNAL	AUTHORS TITLE		SOURCE ORGANISM	ACCESSION VERSION KEYWORDS	RESULT 1 BD211560 LOCUS DEFINITION
PN JP 2002516104-A)66 PD 04-JUN-2002 PP 04-JUN-2002 PF 28-MAY-1999 JP 2000551002 PR 29-MAY-1998 US 60/087306 PR 29-MAY-1999 UF 2000551002 PR 29-MAY-1999 US 60/087306 PR 29-MAY-1998 US 60/087306 PR 29-MAY-1999 US 60/087306 PR 29-MAY-1998 US 60/087306 PR 2	3	and method of using the same Patent: JP 2002516104-A 66 04-JUN-2002;	Lindber L. C. 1927 Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S. Canine and feline immunoregulatory proteins, nucleic acid molecules	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.	log)	####1560 BD211560.1 GI:33021330 JP 2002516104.A/66.	BD211560 402 bp DNA linear PAT 17-JUL-2003 Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same.

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KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                      RESULT 2
BD211561/c
LOCUS
                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                          ACCESSION
VERSION
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Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                       DEFINITION
                                 JOURNAL
                                                               TITLE
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PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC Canine and feline immunoregulatory proteins, nucleic acid CC molecules and CC method of using the same FH Key Location/~~~~
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and method of using the same.

4 BD211561 GI:33021331

JP 2002516104-A/67.

Canis familiaris (dog)

M Canis familiaris
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

1 (bases 1 to 402)
Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
Patent: JP 2002516104-A 67 04-JUN-2002;
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OS Canis familiaris (dog)
                                                                                                                                                                                                                                                                                                                ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134
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GTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT 402
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/mol_type="genomic DNA"
/db_xref="taxon:9615"
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PD 04-JUN-2002

PF 28-MAY-1999 JP 2000551002

PF 29-MAY-1998 US 60/087306

PI CEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395, PC A61K45/00, A61K48/00, A61P37/02, A61P37/04 C07V14/54, PC C07K14/54, C07V14/54, C07V14/54, C07K14/54, C
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Sequence 83
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CC method of using the same
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C07K14/54,
C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5/10, PC
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Location/Qualifiers
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/mol_type="genomic DNA"
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,
Canine II.-4 immunoregulatory proteins and uses
Patent: US 6471957-A 83 29-OCT-2002;
Location/Qualifiers
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 84 29-OCT-2002;
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                                                                            /organism="unknown"
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Caniney IL-13 immunoregulatory proteins and uses th
Patent: US 6482403-A 83 19-NOV-2002;
Location/Qualifiers
                                                                                                                                                                                                                                                                                      Unclassified.
                           GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis
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ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis
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AR254495
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,
Caniney II.-13 immunoregulatory proteins and use
Patent: US 6482403-A 84 19-NOV-2002;
Location/Qualifiers
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 ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer
                      CARARARARAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAGTTCCTAGACTACCTGCAA
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Canis familiaris interleukin-5 r
AP331919 GI:15919180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yang, S., Sellins, K.S., Weber, B. and McCall, C. Canine interleukin-5: molecular characterization of the expression of biologically active recombinant protein J. Interferon Cytokine Res. 21 (6), 361-367 (2001)
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Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
1 (bases 1 to 610)
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Canis familiaris
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PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K
PC C07K14/54,
PC C07K14/56,C07K14/705,C07K16/24,C07K16/28,C12N1/21,C12N5
PC C07K14/56,C07K14/705,A61K37/02,A61K37/66,C12N5/00 CC G01N33/15,
PC G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC and feline immunoregulatory proteins, nucleic acid CC molecules and CC molecules and CC method of using the same FH Key Location/Qualifiers
FT CDS (29)...(430).
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Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.

Sim,G., Yang,S., and Wonderling,R.S.

Patches, J. Capper 2002516104-A 64 04-JUN-2002;

PR 20-MAY-1999 JP 2000551002

PR 20-MAY-1999 US 60/087306

PR 20-MAY-1998 US 60/087306

PR 20-MAY-1998 US 60/087306
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Canis familiaris (dog)
Canis familiaris
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Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
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R 29-MAY-1998 US 60/087306

T GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395,
                                                                                                  AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis
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                     ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Canis familiaris"
/mol_type="genomic DNA"
/db_xref="taxon:9615"
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Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S. Canine and feline immunoregulatory proteins, nucleic and method of using the same Patent: JP 2002516104-A 65 04-JUN-2002;
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 80 29-OCT-2002;
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,
Canine IL-4 immunoregulatory proteins and uses
Patent: US 6471957-A 82 29-OCT-2002;
Location/Qualifiers
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                                                                     ValPheLeuGlyVallleAsnThrGluTrpThrProGluSer 134
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                                    im (6.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S. Caniney II.-13 immunoregulatory proteins and uses thereof Patent: US 6482403-A 82 19-NOV-2002; Location/Qualifiers
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Caniney II-13 immunoregulatory proteins and uses th
Patent: US 6482403-A 80 19-NOV-2002;
Location/Qualifiers
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Methods and compositions concerning canine interleukin 5
Patent: WO 0111049-A 1 15-FEB-2001;
IDEXX LABORATORIES, INC. (US)
On Jun 24, 2001 this sequence version replaced gi:13185501.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Canis familiaris (dog)
Canis familiaris
Cukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Carnivora, Fissipedia, Canidae, Canis.
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Sequence 1 from Patent W00111049
AX083939
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GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
                                                                   ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
                                                                                                          GCTGTAGAAAATCCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACTCAT
                                                                                                                        AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
                                                                                                                                                             MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe
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                                                      CGAACTTGGCTGATAGGCGATGGGAAACCTGATGATTCCTACTCCTGAAAATAAAAATCAC
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/mol_type="unassigned DNA"
/db_xref="taxon:9615"
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            121 ValPheLeuGlyVallleAsnThrGluTrpThrProGluSer 134
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                                                           GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln
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                                             CAAAAAAAAAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAGTTCCTAGACTACCTGCAA
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Search completed: August 6, 2005, 22:43:05 Job time: 2465.9 secs

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-Q-/Cgn2_1/USPTO_spool_p/US10787382/runat_04082005_084751_19282/app_query.fasta_1.590
-Q-/Cgn2_1/USPTO_spool_p/US10787382/runat_04082005_084751_19282/app_query.fasta_1.590
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-LOOPEXT=0 -UNITS=bite -START=1 -END=-1 -WATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
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-USER=US10787382 @CGN_1 1886 @STUNAT -DSPBLOCK=100 -LONGLOG
-NORMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
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ALIGNMENTS

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Interleukin-5; IL-5; antibody; canine; inhibitor; immune response; immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

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Canis familiaris.

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29-MAY-1998; 98US-0087306P.

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Sim G, Yang S, Dreitz MJ, Wonderling RS;

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GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80

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P-PSDB; AAY58219.
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immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
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CGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAATCAC
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                                                                                   CC Sequences AAZ55546-Z5551 represent cDNA sequences encoding canine CC interleukin-5 (II-5). The invention relates to canine II-4, canine or CC feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 ligand), canine II-5, canine II-13, feline interferon-alpha (IFN-alpha) CC and feline granulocyte macrophage colony-stimulating factor (GMCSF), and CC nucleotides which encode these immunoregulatory proteins. The proteins, CC their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune CC may be used to treat autoimmune or infectious diseases including CC allergies, tumours, inflammation and graft rejection, and to increase the CC response from a co-administered antigen. The nucleotide sequences can CC also be used for the recombinant production of a protein, while CC nucleotide fragments are useful as probes, as amplification primers and CC nucleotide fragments are useful as probes, as amplification primers and CC factivity, while the antibodies may be used in detection, and in drug
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immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
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Pred. No.:
  WPI; 2000-072623/06.
P-PSDB; AAY58219.
                                                                         Sim G,
                                                                                                                                                                      29-MAY-1998;
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immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
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for treating or
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the IL-5 coding sequence shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 405 BP; 131 A; 77
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P-PSDB; AAB72615.
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             ValPheLeuGlyVallleAsnThrGluTrpThrProGluSer
                                                                 GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln
                                                                                                     GGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAGCGC
                                                                                                                       GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
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GTATTTCTTGGTGTAATAAACACCGAGTGGACAATGGAAAGT
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                                     HisArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn 59
                                                                                                  PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr
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                                                                                       CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 creatine); canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha) cand feline granulocyte macrophage colony-stimulating factor (CMCSP), and concludes which encode these immunoregulatory proteins. The proteins, their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapputic or prophylactic regulation of an immune cresponse in animals (particularly cats, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including allergies, tumours, inflammation and graft rejection, and to increase the cresponse from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while case sources of inhibitory therapeutics (e.g., antisense oligonucleotides). The proteins may be used to raise antibodies and to screen for modulators of activity, while the antibodies may be used in detection, and in drug carefular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acids encoding immunoregulatory proteins from cats or dogs, useful for treating or preventing e.g. tumors or autoimmune disease
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      Sequence 345
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immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
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This invention describes a novel nucleic acid vaccine for preventing and curing human and pork cysticercosis. The invention involves the formation of a eukaryotic expression plasmid from fuelon transcript expression unit consisting of three protective antigen genes (cC1, cC3 and cC4) of pig tenial cysticercus and coexpression unit of related cell factor gamma interferon (IFN-gamma) and pork interleukin 5 (IL-5)] genes. The production and purification process of said nucleic acid vaccine is
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tenial cysticercus;
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                                                                                                              Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-1 livestock; cow; stress; transport; vaccine adjuvant; veterinary; immunosuppression; allergy; reproductive system; growth; early maintibody; diagnosis; immunopotentiator; early haematopoietic progenitor cell; cytotoxic cell; thymocyte; secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 simple and convenient, the physical and chemical properties of the vaccine are stable, and the vaccine is easy to store and transport, possesses effective immunological protective function for human and cysticercosis. This sequence represents the pig IL-5 gene used in the
                       exon
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24-SEP-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine adjuvants and to treat or prevent microbial infections in livestock.
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                                                                                                                                             ArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPheAla 21
ACTCTGCTGATAGGTGATGGGGAACTTGATGATTCCTACTCCTCAGCATACAAATCACCAA
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The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5). CC Ovine IL-5 or IL-12 are used to treat and/or prevent infections in CC livestock (esp. cows and sheep), particularly where the animals are stressed, e.g. during transport. IL-5 and IL-12 can also be used as adjuvants in vaccines for veterinary use (partic. weakly immunogenic subunit or synthetic peptide vaccines). They may also be used to treat cancer, immunosuppression and allergy, to enhance/suppress the reproductive system and to promote growth or early maturity. Optionally interleukin can be delivered from constructs or delivery cells and cantibodies are useful in enzyme immunoassays for rapid diagnosis of confection. The interleukins are immunopotentiators, especially IL-5 promotes growth of early haematopoietic progenitor cells and generation of cytotoxic cells from thymocytes, also it stimulates production and secretion of IgM and IgA (in synergism with bacterial endotoxin). IL-12 induces production of gamma-interferon by, and proliferation of, T and NK
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P-PSDB; AAW08479.
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95AU-00006244.
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                                                                           10-AUG-1999;
                                                                                               09-AUG-2000; 2000WO-US021651.
                                                                                                                      15-FEB-2001.
                                                                                                                                           WO200111049-A2
                                                                                                                                                                                    Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
inflammatory reaction; ds.
                                                                                                                                                                                                                   Canine interleukin-5 coding sequence #3
                                                                                                                                                                                                                                        04-MAY-2001
                                                                                                                                                                                                                                                               AAF74306;
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                                Lawton R,
                                                      IDEXX LAB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCTGATAGGTGATGGGAACTTGATGATTCCTACTCCTCAGCATACAAATCACCAACTA
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                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGTGAAAAAATATTCCGAAACTTGTCTTTAATAAAAGAATACATAGACCTCCAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                              AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGlnLys 102
                                                                                                                                                                                                                                                                                                                               CTTGGTGTGATAAACACAGAGTGGACGATGGAAAGC 396
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothicate; impaired respiration; infilammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiallergic; antialterdic; cytostatic; analgesic; impaired airway; antialtergic; antiasthmatic; cytostatic; analgesic; impaired airway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma; respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary disease; coronic obstructive pulmonary disease; COPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.

03-AUG-1998; 03-AUG-1999;

98US-0095212P 99WO-US017712

(UYEC-) UNIV

EAST CAROLINA

WO200009525-A2.

sapiens.

Human adenosine receptor related polynucleotide SEQ ID NO:2546.

28-JUL-2000

(first entry)

AAA34857

standard;

DNA; 816

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the IL-5 coding sequence shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel canine interleukin 5 polynucleotide and polypeptides are used for generating antibodies which are useful in treating allergies in dogs.
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                                                                                                                                                                                                                                                                                                                                                                                            PheLeuAspTyrLeuGlnValPheLeuGlyValIleAsnThrGluTrpThr 131
                                                                                                                                                                                                                                                                                                                                                                                                                                            LysGluHisIleGluArgGlnLysLysArgCysAlsGlyGluArgTrpArgValThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGAAAATAAAATCACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTG
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                                                                                                                                                                                                                                                                                                                                                                               TTCCTAGACTACCTGCAAGTATTTCTTGGTCTAATAAACACCGAGTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGAACACATAGAGCGCCAAAAAAAAAAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAG
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Conservative:
Mismatches:
Indels:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC nucleic acids involved in bronchoconstriction, altergies, and/or contribution. The ON can have antiinflammatory, antiallergic, and/or contribution. The ON can have antiinflammatory, antiallergic, and/or contribution. The ON can have antiinflammatory, antiallergic, and/or contribution of diseases associated with inflammation, contributions are compaired airways, including lung disease and diseases whose secondary conficts afflict the lungs of a subject. They can be used for treating contributions, pulmonary vasoconstriction, allergies, asthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), and cancers such as leukaemias, lymphomas, cortinomary disease (COPD), and cancers such as leukaemias, lymphomas, carcinomas, and cancers which may metastasise to the lungs, including carcinomas, and cancers. The reduction of the adenosine content of the Dreast and prostate cancer. The reduction of the adenosine content of the calculate and prostate cancer. The reduction of the adenosine receptors causing contances of deoxyadenosine which activates adenosine receptors causing contribution and inflammation. AAA32313 to AAA35312 represent the containion of the present the present intensity and the present intensity and the present intensity contained sequences. SEQ ID NO:11 to 1860 (AAA3323 to AAA3323 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 816
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                                                                                                                                                                                                                                                                                                                                                                              105 CCCACAGAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCAT
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                                GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln 120
                                                                                                                GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg 100
                                                                                                                                                                                                                                                                                  CGAACTCTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                           AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAGGATGCTTCTGCATTTGAGTTTGCTAGCTCTTGGAGCTGCCTACGTGTATGCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe 20
                                                                                                                                                                                     CAACTGTGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAA 284
                                                                                                                                                                                                                             GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis
                                                                                                                                                                                                                                                                                                                            ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis
CAAAAAAAAAAGTGTGGAGAAGAAGACGGAGTAAACCAATTCCTAGACTACCTGCAA
                                                                                            GGGGGTACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 716; 1343pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     emphysema, respiratory distress syndrome, ischemia or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   277 A; 137
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a new composition comprising an antisense denosine (up to 15%), which targets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
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Indels:
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                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 816 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inflammation and inflammatory disorders. The present invention relates to an IL-5 antisense oligonucleotide (see AAA1337) which inhibits the expression of IL-5. The antisense oligonucleotide has at least one non-natural internucleoside linkage. The oligonucleotide is able to inhibit IL-5 secretion in a dose dependent manner, and is useful for inhibiting IL-5 expression and therefore treating inflammatory diseases, asthma, allergic rhinitis, allergic conjunctivitis and inflammatory skin diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents the human interleukin-5 (IL-5) encoding nucleotide sequence. Interleukin-5 is involved in eosinophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide comprising non-natural internucleoside linkage, useful for inhibiting interleukin-5 expression and treating inflammatory diseases, asthma, allergic rhinitis, allergic conjunctivitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; interleukin-5; IL-5; inflammatory disease; asthma; eczema; antisense oligonucleotide; allergic rhinitis; inflammatory skin d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA13338
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human interleukin-5 (IL-5) nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (WELT/) WELTMAN J K. (KARI/) KARIM A S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
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41 ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
                                                                                                                                                                                                            MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe 20
                                                          CCCACAGAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCAT 164
                                                                                                               AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
                                                                                                                                                                                ATGAGGATGCTTCTGCATTTGAGTTTGCTAGCTCTTGGAGCTGCCTACGTGTATGCCATC 104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Karim AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry
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                     The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) compilsing them. In the antisense oligonucleotides the A is replaced by a 'Universal' or alternative base. (I) can have respiratory, bronchodilator, antiinflammatory, analyesic, immunosuppressive, antiasthmatic, hypotensive and cytostatic activities. The antisense oligonucleotides and (I) can be used to down-regulate the expression and or activity of target polypeptides associated with lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; alrway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antiinflammattory; immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; pulmonary impeded respiration; surfactant hypoproduction; pulmonary obstruction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pulmonary transplantation rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 788; 1592pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human low adenosine antisense oligonucleotide related sequence #2546
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   immunoglobulins and antibodies,
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J W.
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                                                                                                                                                                                                                                                                                                                                              transmitters, defensins, growth factors, vascactive peptides and receptors, binding proteins and malignancy associated proteins. The antisense oligonucleotides may be treat disorders including respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation, allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CP), allergie rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary distress (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAP18434 to AAF21543 represent human polynucleotide the processor inventors and antisense oligonucleotides used in the exemplification of the processor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chemokines, endogenously produced specific and non-specific enzymes, binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system receptors, CNS and peripheral nervous and non-nervous system peptide
                                                                                                                                                                                                                                                                                                 Sequence 816 BP;
                                                                                                                                                                       Match:
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                                             AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis
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GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT
                 ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134
                                                                                                            ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis
                                                     CAAAAAAAAAGTGTGGAGAAGAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAA
                                                                                                                                       GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
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RESULT 15 ADG33104

standard;

AAAXBXBXBXBR

ADG33104

DNA;

ВP

(first entry)

Human DNA differentially expressed in patients with SLE SeqID428

human; ds; autoimmune; chronic inflammatory disease; SLE; systemic lupus erythematosis; rheumatoid arthritis; chole cholecystitis; ylosing spondylitis;

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Query Match:
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Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to novel methods for diagnosing and monitoring CC autoimmune and chronic inflammatory diseases. Specifically, it refers to CC the identification of genes that have a clinical utility as diagnostic CC tools for the management of, in particular, patients with systemic lupus CC exythematosis (SLE) or rheumatoid arthritis (RA). Accordingly, the CC present invention describes a method for determining the levels of CC multiple differentially expressed genes of a patient, in a concerted CC manner, in order to achieve an improved diagnostic assay with sensitivity CC and specificity for the disease in question. As such, these genes are CC useful for the diagnosis of various other inflammatory disorders concluding cholecystitis, Sjogren's disease, CREST syndrome, sclerosing CC including spondylitis, ulcerative collitis, primary sclerosing CC cholangitis, appendicitis, diverticulitis, and primary biliary sclerosis. This polynucleotide is a DNA sequence representing human mRNA that is CC of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                       No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diagnosing or monitoring autoimmune and chronic inflammatory diseases, such as rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis, psoriasis and asthma by detecting the expression level of one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 816
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1: /cgn2_6/ptodata/1/pubpaa/US07 PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US06 NEW PUB.pep:*

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US-09-755-633-10
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US-10-289-454-233
US-10-400-708-12
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Sequence 5, Appli
Sequence 81, Appl
Sequence 81, Appli
Sequence 5, Appli
Sequence 10, Appl
Sequence 86, Appl
Sequence 86, Appl
Sequence 10, Appl
Sequence 233, Appl
Sequence 12, Appl
Sequence 12, Appl
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     US-10-298-148-12
US-10-050-898-233
US-10-0773-939-12
US-10-773-654-12
US-10-866-540-12
US-10-866-580-12
US-10-866-580-12
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US-10-866-580-12
US-10-866-590-12
US-10-866-101A-86
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US-10-688-834A-568
US-10-688-834A-568
US-10-688-834A-598
US-10-688-834A-599
     sequence
  112, Appl 233, Appl 24, Appl 25, Appl 26, Appl 2
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 5
ID NO 5
IT TYPE: PRT
ORGANISM: Canis familiaris
US-09-755-633-5
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Sequence 81, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Venderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: WONDERLING, NUCLEIC
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 696; DB 9; Length 134; Best Local Similarity 100.0%; Pred. No. 1.4e-71; Matches 134; Conservative 0; Mismatches 0; Indels
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APPLICANT: McCall, Catherine A.
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR PILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
NUMBER OF SEQ ID NOS: 21
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Patent No. US20020127200A1
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US-10-050-902-332

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FILE OF INVENTION: ACID MOLECULBS, ....
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR PILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SRQ ID NOS: 154
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 81
LENGTH: 134
TYPE: PRT
ORGANISM: Canis familiaris
US-10-218-654-81
                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Dreitz, Matthew J.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: CANING AND FELLINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/10/262,439

CURRENT FILING DATE: 2002-09-30

PRIOR APPLICATION NUMBER: US/09/451,527

PRIOR FILING DATE: 1999-12-01

PRIOR FILING DATE: 1999-12-01

PRIOR APPLICATION NUMBER: 09/322,409

PRIOR FILING DATE: 1999-05-28

PRIOR FILING DATE: 1998-05-29

PRIOR FILING DATE: 1998-05-29
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US-10-262-439-81
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Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 134; Conservative
                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. SEQ ID NO 81
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                                                                                                                                                                                                                                                                                ORGANISM: Canis familiaris
                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                                          LENGTH: 134
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                                                                                                           1 MRMILINLSILIALGAAYVSAFAVENPMARLVAETLTILLSTHRTWLIGDGNIMIPTPENKNH
                          QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIBRQKKRCAGERWRVTKFLDYLQ 120
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QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                                     MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTILSTHRTWLIGDGNLMIPTPENKNH
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                                                                                                                                                                                            100.0%;
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                                                                                                                                                                      Score 696; DB 14;
Pred. No. 1.4e-71;
); Mismatches 0;
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VFLGVINTEWTPES 134

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; LENGTH: 115
; TYPE: PRT
; ORGANISM: Canis familiaris
US-09-755-633-10
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APPLICANT: Yang, Shumin
APPLICANT: WcCall, Catherine A.
APPLICANT: Weber, Eric R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 5
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Publication No. US20040191868A1
                                                                                          SOFTWARE: F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10,
                                                                                                                                                                                                                 TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1 CURRENT APPLICATION NUMBER: US/09/755,633 CURRENT FILING DATE: 2001-01-05 PRIOR APPLICATION NUMBER: 09/322,409 PRIOR FILING DATE: 1999-05-28 PRIOR FILING DATE: 1999-05-28
                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
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CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1
                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/0
PRIOR FILING DATE: 1998-05-29
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SOFTWARE: PatentIn Ver. 2.1
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                                                                                                                                             NUMBER OF SEQ ID NOS:
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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 86
; LENGTH: 115
; TYPE: PRT
; ORGANISM: Canis familiaris
US-10-218-654-86
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Publication No. US20030143196A1
GENERAL INFORMATION:
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Best Local Similarity
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Best Local Similarity
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APPLICANT: DTEIC, MARTCHEW J.
APPLICANT: Dreitz, MARTCHEW J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANTON: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INCENTIA: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 1002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR PILING DATE: 1999-05-28
PRIOR PILING DATE: 1998-05-29
PRIOR FILING DATE: 1998-05-29
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APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Ureitz, Watthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: WONDING AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-Cl
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PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
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CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
                                                                                                                                                                                                                                                                                             APPLICANT: Sim, Gek-Kee APPLICANT: Yang, Shumii
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                                                                                                                                                                                                                                                                                               Yang, Shumin
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CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT PILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR PELING DATE: 199-05-29
PRIOR PILING DATE: 1999-05-29
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR PILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOPTWARE: PATENTIN VET. 2.1
SOPTWARE: PATENTIN VET. 2.1
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US-10-289-454-233
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Best Local S
Matches 115
                                                                                                                                               Sequence 233, Application US/10289454 Publication No. US20030157479A1 GENERAL INFORMATION:
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Publication No. US20040191868A1

GENERAL INFORMATION:

APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.

APPLICANT: Weber, Eric R.

TITLE OF INVENTION: CAULINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C1-C1
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 86
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APPLICANT: Bachmann, Martin
APPLICANT: Jennings, Gary
APPLICANT: Jennings, Gary
APPLICANT: Sonderegger, Ivo
TITLE OF INVENTION: Antigen Arrays for Treatments
FILE REFERENCE: 1700.0360001
CURRENT APPLICATION NUMBER: US/10/289,454
CURRENT FILING DATE: 2003-02-10
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TYPE: PRT
ORGANISM: Canis familiaris
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ORGANISM: Canis familiaris
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100.0%; Pred. No.
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100.0%; Pred. No.
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US-10-400-377-12
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US-10-289-454-233
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SEQ ID NO 12
LENGTH: 134
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NUMBER OF SEQ ID NOS: 386
SOFTWARE: Patentin version 3.2
SEQ ID NO 233
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Best Local (
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Best Local Similarity
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APPLICANT: Bolder Blotechnology, Inc.
APPLICANT: Bolder Blotechnology, Inc.
TITLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins
FILE REFERENCE: 4152-1-PUS
CURRENT APPLICATION NUMBER: US/10/400,377
CURRENT FILING DATE: 2003-03-26
PRIOR APPLICATION NUMBER: US/09/462,941
PRIOR FILING DATE: 2000-01-14
PRIOR FILING DATE: 2000-01-14
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PRIOR FILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: PCT/IB02/00166
PRIOR FILING DATE: 2002-01-21
PRIOR APPLICATION NUMBER: US 10/050,902
PRIOR PILING DATE: 2002-01-18
PRIOR FILING DATE: 2002-01-18
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TYPE: PRT
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 EFLGVMNTEWIIES 134
                     VFLGVINTEWTPES 134
                                                                                             QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNL6LIKEHIERQKKRCAGERWRVTKFLDYLQ 120
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64.9%; Pred. No. 4.8e-41;
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CURRENT APPLICATION NUMBER: US/10/400,708
CURRENT FILING DATE: 2003-03-26
PRIOR APPLICATION NUMBER: US/09/462,941
PRIOR FILING DATE: 2000-01-14
PRIOR APPLICATION NUMBER: 60/052,516
PRIOR FILING DATE: 1997-07-14
NUMBER OF SEQ ID NOS: 41
SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 12
LENGTH: 134
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US-10-298-148-12
Sequence 12, Application US/10298148
Publication No. US20030171284A1
GENERAL INFORMATION:
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US-10-298-148-12
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US-10-400-708-12
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CURRENT FILING DATE: 2002-11-15
PRIOR APPLICATION NUMBER: US/09/462,941
PRIOR FILING DATE: 2000-01-14
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PRIOR APPLICATION NUMBER: 60/052,516
PRIOR FILING DATE: 1997-07-14
NUMBER OF SEQ ID NOS: 41
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APPLICANT: Bolder Biotechnology, Inc.
TITLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins
FILE REFERENCE: 4152-1-PUS
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APPLICANT: Bolder Biotechnology, Inc.
TITLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins
FILE REFERENCE: 4152-1-PUS
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61 QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
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4.8e-41;
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US-10-050-902-233
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CURRENT APPLICATION NUMBER: US/10/050,902
CURRENT FILING DATE: 2002-01-18
PRIOR APPLICATION NUMBER: US 60/262,379
PRIOR FILING DATE: 2001-01-19
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/386,549
PRIOR APPLICATION NUMBER: US 60/326,998
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 233
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Best Local Similarity
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PRIOR APPLICATION NUMBER: US
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PPLICANT: Sebbel, Peter
PPLICANT: Diossek, Christine
PPLICANT: Molecular Antigen Array
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INVENTION: Molecular Antigen Array
                                                                         Lechner, Franziska
Sebbel, Peter
Piossek, Christine
Ortmann, Rainer
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Maurer, Patrick
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APPLICANT: COX III. George N

APPLICANT: Bolder Biotechnology, Inc.

FILLE OF INVENTION: Derivatives of Growth Hormone and Related Proteins

FILE REFERENCE: 4152-1-PUS

FILE REFERENCE: 4152-1-PUS

CURRENT APPLICATION NUMBER: US/10/773,939

CURRENT FILING DATE: 2004-02-05

PRIOR APPLICATION NUMBER: US/10/400,377

PRIOR APPLICATION NUMBER: US/09/462,941

PRIOR FILING DATE: 2000-01-14

PRIOR FILING DATE: 2000-01-14

PRIOR APPLICATION NUMBER: 60/052,516

PRIOR APPLICATION NUMBER: 50/052,516

PRIOR APPLICATION NUMBER: 50/052,516

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PRIOR APPLICATION NUMBER: 50/052,
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CURRENT APPLICATION NUMBER: US/10/050,898
CURRENT FILING DATE: 2002-01-18
PRIOR APPLICATION NUMBER: US 60/262,379
PRIOR PILING DATE: 2001-01-19
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/326,998
PRIOR PILING DATE: 2001-10-05
PRIOR PILING DATE: 2001-11-07
PRIOR PILING DATE: 2001-11-07
NUMBER: US 60/331,045
PRIOR PILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 350
SOFTWARE: PATENTIN VET: 2.1
SEQ ID NO 233
LENGTH: 134
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US-10-773-939-12

; Sequence 12, Application US/10773939

; Publication No. US20040175356A1

; GENERAL INFORMATION:
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; ORGANISM: Homo sapiens
US-10-773-939-12
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Matches 87; Conservative 1
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17; Mismatches 30; Indels
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RESULT 1
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                                                                                                                                       Sequences AAY58219-Y58220 represent encoded and mature canine interleukin cf (IL-5). The invention relates to canine IL-4, canine or feline Plt-3 cliqand, canine or feline CD40, canine or feline CD154 (CD40 ligand), canine IL-5, canine IL-13, feline interferon-alpha (IRV-alpha) and feline canine IL-5, canine IL-13, feline interferon-alpha (IRV-alpha) and feline granulocyte macrophage colony-stimulating factor (GMCSF), and nucleotides which encode these immunoregulatory proteins. The proteins, their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune response in animals (particularly cats, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including callergies, tumours, inflammation and graft rejection, and to increase the response from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while cas sources of inhibitory therapeutics (e.g., antisense oligonucleotides). The proteins may be used to raise antibodies and to screen for modulators of activity, while the antibodies may be used in detection, and in drug
                                                                                      Query Match
Best Local Similarity
Matches 134; Conserv
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66
                                                                                                                                      Sequence 134
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                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acids encoding immunoregulatory proteins from cats or dogs, useful for treating or preventing e.g. tumors or autoimmune disease.
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                                                                                     100.0%; Score 696; DB 3; Length 134;
100.0%; Pred. No. 1e-74;
tive 0; Mismatches 0; Indels
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AC AAY5
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Best Local S
Matches 133
  14-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canis sp
                           AAY58220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Guo H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB72615;
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  (first entry)
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Sequence 134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the IL-5 protein shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canine interleukin-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB72615 standard; protein; 134 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 29; Page 46-47; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel canine interleukin 5 polynucleotide and polypeptides are used for generating antibodies which are useful in treating allergies in dogs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAF74300.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-AUG-2000; 2000WO-US021651.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
AAY58220 standard; protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (IDEX-) IDEXX LAB INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammatory reaction.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lawton R, Mermer B,
                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                    VFLGVINTEWTPSS
                                                                                                                                                                                                                QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VFLGVINTEWTPES 134
                                                                                                                                                                                       QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VFLGVINTEWTPES 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ 120
                                                                                                       VELGUINTEWIMES 134
                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                           98.7%;
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                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                      Score 687; DB 4;
Pred. No. 1.2e-73;
0; Mismatches 1
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RESULT 4
AAW08479
ID AAW0
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AC AAW0
AC AAW0
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DT 17-C
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DE Ovin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequences AAY58219-Y58220 represent encoded and mature canine interleukin 5 (IL-5). The invention relates to canine IL-4, canine or feline Plt-3 ilgand, canine or feline CP16, canine CD164 (CP40 ilgand), canine or feline CD164 (CP40 ilgand), canine IL-13, feline interferon-alpha (CP40 alpha) and feline granulocyte macrophage colony-stimulating factor (GMCSP), and nucleotides which encode these immunoregulatory proteins. The proteins, their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune response in animals (particularly cate, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including allergies, tumours, inflammation and graft rejection, and to increase the response from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while nucleotide fragments are useful as probes, as amplification primers and as sources of inhibitory therapeutics (e.g., antisense oligonucleotides). The proteins may be used to raise antibodies and to screen for modulators of activity, while the antibodies may be used in detection, and in drug
                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 115
                                               17-OCT-2003
24-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding immunoregulatory proteins from cats or dogs, useful for treating or preventing e.g. tumors or autoimmune disease
                 Ovine IL-5
                                                                                                                                 AAW08479 standard; protein; 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-1998;
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immunoregulation; tumour; cancer; autoimmune disease; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Canine mature interleukin-5 (IL-5)
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                                                                                                                                                                                                                                                                                                                                                        115;
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                                                                                                                                                                                                                                       HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES
                                                                                                                                                                                                                                                                                  HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 227; 264pp; English.
                                                                                                                                                                                                                                                                                                                                                     87.6%; Score 610; Di
nilarity 100.0%; Pred. No. 1.0
Conservative 0; Mismatches
                                                 (revised)
(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wonderling RS;
                                                                                                                                                                                                                                                                                                                                                     . 1.6e-64;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                        DB 3;
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AAR92802 ID AARS XX AC AARS

AAR92802 standard; protein; 134

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AAR92802;

RESULT

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122 120 3 MILINISILAIGAAYVSAFAVENPMNRIVAETITIISTHRTWLIGDGNIMIPTPENKNHQL

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LGVINTEWTPES 134

123 121

LGVINTEWIMBS

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CC or II-12 are used to treat and/or prevent infections in livestock (esp. CC cows and sheep), particularly where the animals are stressed, e.g. during CC transport. II-5 and II-12 can also be used as adjuvants in vaccines for veterinary use (partic. weakly immunogenic subunit or synthetic peptide CC vaccines). They may also be used to treat cancer, immunosuppression and CC allergy, to enhance/suppress the reproductive system and to promote CC growth or early maturity. Optionally interleukin can be delivered from CC constructs or delivery cells and antibodies are useful in enzyme CC immunosuspass for rapid diagnosis of infection. The interleukins are immunosused for rapid diagnosis of infection. The interleukins are CC immunopotentiators, especially II-5 promotes growth of early haematopoietic progenitor cells and generation of cycotoxic cells from CC themocytes, also it stimulates production and secretion of IgM and IgA CC (in synergism with bacterial endotoxin). II-12 induces production of CC gamma-interferon by, and proliferation of, T and NK cells and increases CC can also be used for in vitro production of II-5 or -12. (Updated on 17-CC OCT-2003 to standardise OS field)
Matches 104;
                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunosuppression; allergy; reproductive system; growth; early maturity; antibody; diagnosis; immunopotentiator; early haematopoietic progenitor cell; cytotoxic cell; thymocyte; secretion; IgM; IgA; bacterial endotoxin; gamma-interferon.
                                                                                 Sequence 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This protein sequence represents ovine interleukin-5 (IL-5). Ovine IL-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 31; Page 39-40; 78pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine adjuvants and to treat or prevent microbial infections in livestock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-077528/07.
N-PSDB; AAT50755, AAT50756.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-1995;
27-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-JUN-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12; livestock; cow; stress; transport; vaccine adjuvant; veterinary; ca
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                       Similarity
  Conservative
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95AU-00006244.
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                   77.0%; Score 536; DB 2; 78.8%; Pred. No. 1.4e-55;
15;
  Mismatches
                                      Length 132;
    Indels
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  Сарв
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ARBSULT 6
AAB72617
ID AAB7
XX AAB7
AC AAB7
XX O4-M
XX Huma
XX DE Huma
XX Dog;
KW infl
XX infl
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XX infl
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Best Local S
Matches 87
                                                                                                           Human interleukin-5
                                                                                                                                     04-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mutelns of human interleukin-5 (AAR92802) and other cytokines (see also AAR92790-801) are obtd. by site-directed mutegenesis of natural cytokine sequences at positions identified as critical for activity. The muteins are useful in the screening of cytokine and cytokine receptor levels, and in the diagnosis or treatment of e.g. inflammation, cancer, and
                 WO200111049-A2
                                                                               Dog; interleukin-5; IL-5; allergy; cancer; gene therapy;
                                                                                                                                                               AAB72617;
                                                                                                                                                                                        AAB72617 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mutein(s) of human and murine cytokine(s), esp. P600 contg. amino acid substitutions. - useful treatment of cancer, inflammation, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zurawski SM,
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                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              degenerative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 43; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-AUG-1994;
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                                                                   inflammatory
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                                                                                                                                                                                                                                                                   121 VFLGVINTEWTPES 134
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                                                                                                                                                                                                                                                                                                                                                                                  MRMILINISILALGAAYVSAFAVENPMNRLVAETITILISTHRTWLIGDGNLMIPTPENKNH
                                                                                                                                                                                                                                                        EFLGVMNTEWIIBS
                                                                                                                                                                                                                                                                                                          QLCTEEIFQGIGTLESQTVQGGTVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQ
                                                                                                                                                                                                                                                                                                                                                              MRMLLHLSLLALGAAYVYAIPTEIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNH
                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                   reaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disorders
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                                                                                                                                  (first
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                                                                                                                                                                                      protein;
                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                 61.8%; Score 430; DB 2;
64.9%; Pred. No. 6.8e-43;
bive 17; Mismatches 30
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o
                                                                    human.
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                                                                                                                                                                                        134 AA
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RESULT 7
ABG94294
ID ABG94294
AC ABG9
XX ABG9
XX ABG9
DT 10-D
XX Huma
XX Huma
XX VACC
XX WO20
XX VO20
PD 25-J
PR 11-J
XX 21-J

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Best Local S
Matches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Guo
                                                                                                                                                            19-JAN-2001; 2001US-0262379P.
04-MAY-2001; 2001US-028849P.
05-OCT-2001; 2001US-032698P.
07-NOV-2001; 2001US-0331045P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 134 AA;
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                              Renner WA,
Piossek C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human interleukin 5 precursor protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG94294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABG94294 standard, protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-191542/19.
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                                                                                                                                                                                                                                                                                             21-JAN-2002; 2002WO-IB000166
                                                                                                                                                                                                                                                                                                                                                    25-JUL-2002.
                                                                                                                                                                                                                                                                                                                                                                                                      WO200256905-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vaccine; infectious disease.
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                                                                                                           (CYTO-) CYTOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDEXX LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawton R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EFLGUMNIEWIIES 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VFLGVINTEWTPES 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QLCTEEIFQGIGTLESQTVQGGTVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MRMLLNLSLLALGAAYVSAFAVENPMNRLVASTLTLLSTHRTWLIGDGNLMIPTPENKNH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fig 2, 48pp;
                                                      Bachmann M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                           BIOTECHNOLOGY AG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61.8%;
                                                    Tissot A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              134 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 430; DB 4;
Pred. No. 6.8e-43;
7; Mismatches 30
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                                                      Maurer P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30,
                                                         Lechner F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                         Sebbel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the core particle by at least one covalent bond. Also disclosed is an cantigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abetal-42) or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant Obeta coat protein capable of forming a capsid which comprises mutant Obeta coat protein capable of forming a capsid which comprises mutant Obeta coat protein capable of forming a capsid which componed so the invention may having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may having a main and may be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to
                                                                      inflammatory immunė disease; myasthenia gravis; multiple sclerosis; immunoproliferative disease lymphadenopathy; Alzheimer's disease; angioimmunoproliferative lymphadenopathy; immunoblastive lymphadenopathy; rheumatoid arthritis; diabetes; infectious disease; factor Xa;
                                                                                                                                                                                                                  Molecular antigen array; vaccine; antigen; antimicrobial; molecular scaffold; amyloid beta; Abeta 1-42; influenza; molecular scaffold; amyloid beta; Abeta 1-42; influenza; molecular scaffold; amyloid beta; Abeta 1-42; influenza; anaphylaxis; adult rergus host disease; gyalemeiated allergic reaction; anaphylaxis; adult respiratory distress syndrome; ARDS; Crohn's disease; allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma; Grave's disease; systemic lupus erythematosus; osteoporosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG80606 standard; protein; 134 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human precursor Interleukin 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VFLGVINTEWTPES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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Pred. No. 6.8e-43
7; Mismatches 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 134
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87;

MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMI PTPENKNH MRMLLHLSLLALGAAYVYAIPTBIPTSALVKBTLALLSTHRTLLIANBTLRIPVPVHKNH

30;

Gaps

60 60 Similarity

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CC one covalent bond; (b) an antigen or antigenic determinant with at least CC one second attachment site, where the antigen or antigenic determinant is CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second CC attachment site is selected from: (i) an attachment site not naturally CC occurring with the antigen or antigenic determinant; and (ii) an attachment site is eselected from: (i) an attachment site not naturally cocurring with the antigen or antigenic determinant; and (ii) an attachment site not naturally occurring with the antigen or antigenic determinant; and (ii) an cocurring with the antigen or antigenic determinant; and the scaffold interact through at least one non-peptide bond to the first attachment site; and cocurring where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The composition is used in communisation and as a vaccine for diseases such as influenza, graft corspiratory distress syndrome (ARDS). Crohn's disease, allergic asthma, caute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease, cocurring and infectious disease lymphadenopathy, cocurring containing limitantoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease, cotto use in the array of the invention. The antigen is modified to posses contained linker peptide which serves as the attachment point to a corresponding limitant 
Query Match
Best Local S
Matches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Maurer
Renner
                                                                            Sequence 134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             molecular scaffold comprising: (i) a core particle selectore particle of a non-natural origin; and (2) a core origin; and (ii) an organiser comprising at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-JAN-2001; 2001US-0262379P.
04-MAY-2001; 2001US-0288549P.
05-CCT-2001; 2001US-032698P.
07-NOV-2001; 2001US-0331045P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a composition comprising: (a) a non-natual molecular scaffold comprising: (i) a core particle selected from:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CYTO-)
(NOVS)
(MAUR/)
(LECH/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JAN-2002; 2002WO-IB000168
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             where the organiser is connected to the core particle by at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ψ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORTMANN R.
LUEOEND R.
STAUFENBIEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOS BIOTECHNOLOGY AG NOVARTIS PHARMA AG. MAURER P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FREY P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LECHNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antigen array used in
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Bachmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X,
                    61.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               418pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ortmann R,
Tissot A,
  Score 430; DB
Pred. No. 6.8e
L7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the production
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Sebbel
                    DB 5;
.8e-43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ָש, ש
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                                       Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             particle of natural first attachment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            non-natural
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for infectious
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                                                                                        Query Match
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Matches 87
                                                                                                                                                                                            The invention relates to haplotyping the human interleukin 5 (II5) gene of an individual, comprising determining if the individual has one of the II5 haplotypes or haplotype pairs fully defined in the specification. Haplotyping the II5 gene of an individual, comprises determining the identity of the nucleotide at two or more polymorphic sites in one copy of the gene. The method also involves identifying an association between a trait and a haplotype or haplotype pair of the II5 gene, comprising comparing the frequency of the haplotype/pair in a population exhibiting the trait with that of a reference population. A higher frequency in the trait population indicates the trait is associated with the haplotype. The polymucleotides and screened compounds are useful to develop inflammatory disorders such as asthma. The present sequence represents the mains acid sequence of interleukin 5 (II5) as described in the method
                                                                                                                                                     Sequence 134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 27, Fig 3; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New haplotypes of the human interleukin 5 gene, useful to diagnose and treat diseases associated with the gene including inflammatory disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bentivegna
Nandabalan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; interleukin 5; IL5; antiinflammatory; antiasthmatic; asthma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-APR-2000; 2000US-0196250P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU10353 standard; protein; 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     haplotyping; inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENA-) GENAISSANCE PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-041289/05.
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                                                                                          87;
                                                                                                                                                                                     invention
                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRYTKFLDYLQ 120
                                                 MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VFLGVINTEWTPES 134
QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                               MRMLLHLSLLALGAAYVYAIPTEIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNH
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                                                                                            Conservative
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                                                                                        61.8%; Score 430; DB 5; Length 134; 64.9%; Pred. No. 6.8e-43; tive 17; Mismatches 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Choi JY,
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Query Match
Best Local Similarity
Matches 87; Conserv
                                                                                                                                                                                                                          The invention describes protecting an animal from a disease or condition that can be treated by wild-type granulocyte macrophage colony stimulating factor (GM-CSF) comprising administering to an animal having the disease or condition a composition comprising GM-CSF cysteine mutein. The methods are useful for preventing or treating the occurrence of neutropenia in an animal, the neutropenia is selected from neutropenia resulting from myelosuppressive chemotherapy, neutropenia associated with bone marrow transplantation, neutropenia associated with infection with the human immundeficiency virus, neutropenia associated with burns, surgery, dilatation, anaemia and neonatal septicaemia, severe chronic neutropenia, neutropenia associated with aplastic anaemia and acute leukaemia. This is the amino acid sequence of human interleukin 5 (IL-5), leukaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunostimulant; granulocyte macrophage colony stimulating factor; GM-CSF; neutropenia; myelosuppressive chemotherapy; bone marrow transplantation; HIV infection; burn; surgery; dilatation; anaemia; neonatal septicaemia; severe chronic neutropenia; aplastic anaemia; acute leukaemia; human; growth hormone super family; aplastic anaemia; acute leukaemia; human; growth hormone super family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protecting an animal from a disease or condition, useful for neutropenia, comprises administering to an animal having the condition a composition comprising GM-CSF cysteine mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
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                                                                                                                                   Sequence 134 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cox GN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003171284-A1.
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                                                                                                                                                                                                  a member of the growth hormone super family which also includes GM-CSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 11; SEQ ID NO 12; 56pp; English.
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14-JAN-2000; 2000US-00462941.
15-NOV-2001; 2001US-0032285P.
11-OCT-2002; 2002US-0418040P.
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DOHERTY D H
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EFLGVMNTEWIIES 134
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61.8%; Score 430; DB 7;
64.9%; Pred. No. 6.8e-43;
tive 17; Mismatches 30
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                                                                            and at least one antigen, which is a protein or peptide of interleukin (IL)-5, IL-13 or eotaxin and is bound to the virus-like particle, or a core particle with at least one first attachment site and at least one antigen with at least one second attachment site, where the antigen is a protein or peptide of IL-5, IL-13 or eotaxin. The second attachment site is a protein or peptide of IL-5, IL-13 or eotaxin. The second attachment site is a protein or antigenic determinant. The second attachment site is capable of association to the first attachment site, and where the antigen or antigenic determinant and the core particle interact through the association to form an ordered and repetitive antigen array. The compositions are useful as medicaments, or for manufacturing a medicament or a vaccine for treating allergic eosinophilic diseases, e.g. asthma, or Hodgkin's lymphoma and related diseases. This sequence is used to generate the commonant of the inverseries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Composition comprising an ordered and repetitive antigen or antigenic determinant array, useful as a medicament, or for manufacturing a medicament for treating allergic eosinophilic diseases, e.g. asthma, c Hodgkin's lymphoma.
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18-JAN-2002; 2002US-00059902.
21-JAN-2002; 2002UO-1B000166.
19-JUL-2002; 2002US-0396636P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antiallergic; antiasthmatic; cytostatic; vaccine; virus-like interleukin; IL-5; IL-13; eotaxin; repetitive antigen array; allergic eosinophilic disease; asthma; Hodgkin's lymphoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-441518/41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention relates to a composition comprising a virus-like particle
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 245pp; English
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Query Match Best Local S Matches 87

ch 61.8%; 1 Similarity 64.9%; 87; Conservative 1

17;

Score 430; DB 7; I pred. No. 6.8e-43; Pred. No. 6.8e-43; I7; Mismatches 30;

Length 134; Indels

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Gaps

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Sequence 134

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RESULT 12
ADP56010
ID ADP56
XX ADP66
XX
The present invention describes an isolated PRO nucleic acid (I). Also CC described: (I) a vector comprising (I); (2) a host cell comprising the CC vector of (I); (3) a process for producing a PRO polypeptides; (4) an isolated PRO polypeptide; (5) a chimeric molecule comprising the CC isolated PRO polypeptide; (5) a chimeric molecule comprising the CC antibody which specifically binds to a polypeptide of (4); (7) a CC composition of matter comprising a polypeptide of (4), an agonist or CC antagonist of the polypeptide or an antibody that binds to the CC composition of combination with a carrier; (8) an article of manufacture CC comprising a container, a label on the container and a composition of CC matter of (7); (9) a method of treating an immune related disease in a sample suspected of having the polypeptide; (11) a method of cdiagnosing an immune related disease or an inflammatory immune response in mammal; (12) a method of identifying a compound that inhibits or commind the activity of or expression of a gene encoding a PRO polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aggarwal
Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immune response stimulation; antiallergic; antianaemic; antiarthritic; antiasthmatic; antidiabetic; antiinflammatory; antipsoriatic; antithyroid; CNS; dermatological; gastrointestinal; haemostatic; hepatotropic; immunostimulant; immunosuppressive; muscular; nephrotropic; neuroprotective; osteopathic; respiratory; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New PRO polynucleotides and polypeptides, useful in useful in diagnosing and treating an immune related disease, e.g. systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus or asthma and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-OCT-2002; 2002US-0422472P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-OCT-2003; 2003WO-US034381.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       stimulating an immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2004039956-A2
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√S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OLCTESIFOGIGTLESQTVQGGTVERLFKNL5LIKKYIDGQKKKCGBERRRVNQFLDYLQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clark H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO 1986; 3009pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134
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antiarthritic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; and (13) a method of stimulating the immune response in a mammal. The PRO sequences have antiallergic, antianaemic, antiarthritic, antiarthmatic, antitibuteric, antitiflammatory, antipeoriatic, antitibuteric, antithyroid, CNS, dermatological, gastrointestinal, haemostatic, hepatotropic, immunostimulant, immunosuppressive, muscular, hepatotropic, immunostimulant, immunosuppressive, muscular, hepatotropic, neuroprotective, osteopathic, respiratory, vasotropic and virucide activities, and can be used in gene therapy. The nucleic acid (I) and the encoded polypaptides, compositions, kits and methods are useful in diagnosing and treating an immune related disease and in stimulating an immune response. The present sequence represents a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Multimeric protein; interleukin 5; IL5; TNFalpha; inflammatory disease; tumour necrosis factor alpha; gene therapy; arthritis; interleukin 5; IL5; epitope; human; tetanus toxoid; chimeric.
                              Klysner
                                                                                                                                                                                                                                                                                                                                                        15-NOV-2002; 2002WO-DK000764.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003042244-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAO30457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 134
                                                                                                                                                                                        (PHAR-)
                                                                                                                                                                                                                                                                         16-NOV-2001; 2001DK-00001702.
16-NOV-2001; 2001US-0331575P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hIL5-P30-P2-hIL5 (hIL5.34) fusion construct protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAO30457 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO protein from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                  NIEL/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
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                                                                              PHARMEXA AS.
KLYSNER 8.
NIELSEN F S.
BRATT T.
VOLDBORG B.
MOURITSEN S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BFLGVMNTEWIIES 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLCTEEIFQGIGTLESQTVQGGTVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQ 120
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                              Nielsen FS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Human IL5 leader peptide"
20. .285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Mature hIL5.34 protein"
                              Bratt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 430; DB 8;
Pred. No. 6.8e-43;
7; Mismatches 30
                              H
                              Voldborg B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30;
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                              Mouritsen
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Best Local S
Matches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to immunogenic analogues of multimeric proteins such as immunogenic variants of interleukin 5 (ILS) and tumour necrosis factor alpha (TMF, TMFalpha) and methods for production of immunogenic analogues. The immunogenic analogue is useful for preparing a composition for treating inflammatory diseases, e.g., architits. It is also used in gene therapy. The present sequence is a fusion construct which comprises 2 human interleukin 5 (ILS) monomers joined by tetanus toxoid epitopes 2 numer in the presence is used to illustrate the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 285 AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 20; Page 109-110; 196pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAL61293.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Multimeric protein; interleukin 5; IL5; TNFalpha; inflammatory disease; tumour necrosis factor alpha; gene therapy; arthritis; interleukin 5; IL5; epitope; human; tetanus toxoid; chimeric.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New immunogenic analogue of a polymeric protein, useful for preparing composition for treating inflammatory diseases e.g. arthritis.
                                                                                                                 16-NOV-2001; 2001DK-00001702.
16-NOV-2001; 2001US-0331575P.
                                                                                                                                                                                                                                                                                                                                                                                                             Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hIL5-P2-P30-hIL5 (hIL5.35)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention
(PHAR-) PHARMEXA AS.
(KLYS/) KLYSNER S.
(NIEL/) NIELSEN F S.
                                                                                                                                                                                                     15-NOV-2002; 2002WO-DK000764.
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20. .285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                   /note= "Mature hIL5.35 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61.8%; Score 430; DB 6; 64.9%; Pred. No. 2.1e-42;
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RESULT 15
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Matches 87
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                      WPI; 2001-191542/19.
N-PSDB; AAF74305.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 285 AA;
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                                                                                                       Guo H,
                                                                                                                                                                                                                                                                       09-AUG-2000; 2000WO-US021651
                                                                                                                                                                                                                                                                                                                                                                                                                                        Canis sp.
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inflammatory reaction.
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N-PSDB; AAL61294.
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(VOLD/) VOLDBORG B.
(MOUR/) MOURITSEN S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 EFLGVMNTEWIIES 134
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Similarity 64.9%; Pred. No. 2.1e-42;
87; Conservative 17; Mismatches 30;
                                                                                                       Lawton R,
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                                                                                                                                                                                              The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the IL-5 protein shown in the specification
                                                                                                                                                                                                                                                                                             Novel canine interleukin 5 polynucleotide and polypeptides are used for generating antibodies which are useful in treating allergies in dogs.
                                                                                                                                                                     Sequence 84
                                                                                                                                                                                                                                                                     Example 1;
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                                                      ch 61.6%; Score 429; DI Similarity 100.0%; Pred. No. 4.: 84; Conservative 0; Mismatches
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QLCIKEVFQGIDTLKNQTAHGEAV 84
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                                                                                                                         4.5e-43;
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Search completed: August Job time : 137.538 secs

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GenCore version 5.1.6
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ALIGNMENTS

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A;Experimental source: lymphocytes
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A;Cross-references: GB:J02971; NID:g186340; PIDN:AAA98620.1; R;Azuma, C.; Tanabe, T.; Konishi, M.; Kinashi, T.; Noma, T.; Nucleic Acids Res. 14, 9149-9158, 1986
A;Title: Cloning of cDNA for human T-cell replacing factor (i A;Reference number: A26112; MUID:87066782; PMID:3024129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N;Alternate names: B-cell growth factor II; cytotoxic T lymphocyte 1 (7Species: Homo sapiens (man) (2Species: Homo sapiens (man) (1-1995 #text_change 09-J-C;Accession: A28477; A33883; A26112; A39881; JX0106; S15775 (2)Accession: A28477; A33883; A26112; A39881; JX0106; S15775 (2)Accession: A28477; A39883; A26112; A39881; JX0106; S15775 (2)Accession: A28477; Mizuta, T.; Noma, T.; Honjo, T. J. Biol. Chem. 262, 16580-16584, 1987 (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-1987) (1-198
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A;Title: The nucleotide sequence of the bovine interleukin-5-encoding cDNA
A;Reference number: JC5116; MUID:97075944; PMID:8918267
A;Accession: JC5116
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C;Date: 02-Peb-1997 #sequence_revision 27-Peb-1997
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R;Mertens, B.; Gobright, E.; Seow, H.F.
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                                                                           factor (interleukin-5) and compariso
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Matsuda, F.; Yaoita, Y.;
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A;Reference number: S00807; MUID:88254
A;Accession: S00807
A;Molecule type: DNA
A;Residues: 1-133 <CAM>
A;Cross-references: UNIPROT:P04401; EM
A;Crossion: A38758
A;Molecule type: mRNA
A;Residues: 1-133 <CAM2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Interleukin-5 precursor - mouse
N;Alternate names: B-cell growth factor II; cytotoxic T lymphocyte inducer; eosinophil di
C;Species: Mus musculus (house mouse)
C;Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text change 09-Jul-2004
C;Accession: S00807; A38758; A24898; JS0077; PH0102; B39881
C;Accession: S00807; A38758; A24898; JS0077; PH0102; B39881
R;Campbell, H.D.; Sanderson, C.J.; Wang, Y.; Hort, Y.; Martinson, M.E.; Tucker, W.Q.J.; Eur. J. Biochem. 174, 345-352, 1988
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FEBS Lett. 283, 61-64, 1991
A;Title: Human interleukin-5 expressed in Escherichia coli: assignment of the disulfide the A;Reference number: S15775; MUID:91243878; PMID:2037074
A;Referents: annotation; disulfide bonds
A;Contents: annotation; disulfide bonds
R;Minamitake, Y.; Kodama, S.; Katayama, T.; Adachi, H.; Tanaka, S.; Tsujimoto, M.
J. Biochem. 107, 292-297, 1990
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A;Molecule type: mRNA
A;Residues: 1-134 <AZUV
A;Coss-references: GB:XO4688; NID:g33835; PIDN:CAA28390.1; PID:g33836
A;Cross-references: GB:XO4688; NID:g33836
A;Cross-references: GB:XO4688; NID:g33835; PIDN:CAA28390.1; PID:g33836
A;Cross-references: GB:XO4688; NID:g33836
A;Cross-refe
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A,Map position: 5q31.1-5q31.1
A,Introns: 48/3, 59/3, 102/3
C,Superfamily: interleukin-5
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A; Residues: 1-134 < YOK>
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                                                                                                                                                                                                                                                                                                                                 MUID:88254802;
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                                                                                                                                             EMBL:X06271; NID:g52685; PIDN:CAA29607.1; PID:g52686
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A;Introns: 47/3; 58/3; 101/3
C;Superfamily: interleukin-5
C;Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine; T-cell F;1-18/Domain: signal sequence #status predicted <SIG>F;19-133/Product: interleukin-5 #status predicted <MAT>F;46/Binding site: carbohydrate (Asn) (covalent) #status experimental F;62/Disulfide bonds: interchain (to 104) #status predicted F;75,89/Binding site: carbohydrate (Asn) (covalent) #status predicted F;75,89/Binding site: carbohydrate (Asn) (covalent) #status predicted F;104/Disulfide bonds: interchain (to 62) #status predicted
                                           interleukin-5 precursor - rat
(;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A48418; S37641
R;Uberla, K.; Li, W.Q.; Qin, Z.H.; Richter, G.; Raabe, T.; Diamantstein, T.; Blankenstein
Cytokine 3, 72-81, 1991
A;Title: The rat interleukin-5 gene: characterization and expression by retroviral gene
A;Reference number: A48418; MUID:91355638; PMID:1653053
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A;Mccession: PMIDO2
A;Mccession: PMIDO2
A;Molecule type: protein
A;Residues: 21-45, X', 47 <TAK>
A;Residues: 21-45, X', 47 <TAK>
A;Residues: 21-45, X', 47 <TAK>
A;Yokota, T; Coffman, R.L.; Hagiwara, H.; Rennick, D.M.; Takebe, Y.; de Vries, J; Lee, F.D.; Arai, N.; Arai, K.
Proc. Natl. Acad. Sci. U.S.A. 84, 7388-7392, 1987
A;Title: Isolation and characterization of lymphokine cDNA clones enco.
A;Reference number: A39881; MUID:88041112; PMID:2823259
A;Accession: B39881
A;Accession: B39881
A;Accession: B39881
A;Residues: 1-14, AA', 15-133 <YOK>
C;Genetics:
-1/3, E6/3, 101/2
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R;Takahashi, T.; Yamaguchi, N.; Mita, S.; Yamaguchi, Y.; Suda, T.;
Mol. Immunol. 27, 911-920, 1990

A;Title: Structural comparison of murine T-cell (B151K12)-derived A;Reference number: PHO102; MUID:91015093; PMID:2215480

A;Reference number: PHO102; MUID:91015093; PMID:2215480
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A;Title: Molecular cloning and structure of the mouse interleukin-5
A;Reference number: JS0077; MUID:90180853; PMID:3078564
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A;Accession: A48418
A;Status: preliminary
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R;Klnashi, T.; Harada, N.; Severinson, E.; Tanabe, T.; Sideras, P.; Koni
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Best Local S
Matches 75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62 LCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQV 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RMLLHLSVLTLSCVW--ATAMBIPMSTVVKETLTQLSAHRALLTSNETMRLPVPTHKNHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQ
                                                                                                                                                                                                                                                                                                                                                                                                                          FLGVMSTEWAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LCIGEIFQGLDILKNQTVRGGTVEMLFQNLSLIKKYIDRQKEKCGEERRRTRQFLDYLQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54.0%; Score 376; DB 1; Length 133 56.8%; Pred. No. 8.2e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           encoding mouse
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R;Kunst, F; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berterk C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Choj A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, B. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Pritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallerk iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapdius, A.; Lardinois, A.; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel, Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle, Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A.; Aluthors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, Akuthors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, Akuthors: Yoshikawa, H.; Janachi, A.; Tanaka, T.; Tanaka, T.; Tanaka, T.; Tanaka, T.; Tanaka, T.; Tanaka, T.; Togano, K.; Yata, K.; Yoshida, K. A.; Aluthors: Yoshikawa, H.; Zumstein, B.; Yoshikawa, H.; Danchin, A.; Reference mumber: A69580; MUID:98044033; PMID:9384377

A.,Accessaio. C66699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-1199 <KUN>
A;Cross-references: UNIPROT:P37871; GB:Z99104; GB:AL009126; NID:g2632267; PIDN:CAB11884.
A;Experimental source: strain 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: G69698
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-132 <UBE>
A;Residues: 1-132 <UBE>
A;Cross-references: UNIPROT:Q08125; EMBL:X54419; NID:g313254; PIDN:CAA38283.1; PID:g31325A;EXPERIMENTAL SOURCE: Cell line TR5-1
A;Experimental source: cell line TR5-1
A;Note: sequence extracted from NCBI backbone (NCBIN:63651, NCBIP:63652)
C;Superfamily: interleukin-5
                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                              Superfamily: Escherichia coli DNA-directed RNA polymerase beta' chain;
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60 HQLCIKEVFQGIDTLKN--QTAHG-EAVDKLFQNLSLIKE--HIERQKKRCAGE-RWRVT 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
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                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                   MRMLLNLSLLAL-GAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BFLGVMSTEWAME 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MRMLLCLNVLTLSCVW--AIAMEIPMSTVVKETLIQLSTHRALLTSNETMRLPVPTHKNH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (beta' subunit) rpoC - Bacillus subtilis
                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                   12.0%;
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                                                                                                                                                                                                                     20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21; Mismatches
                                                                                                                                                                                                                                                       Score 83.5;
Pred. No. 7.
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Pred. No. 2.4e-28;
                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                         41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 132;
                                                                                                                                                                                                                         Indels
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                                                                                 147
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QLLSEKEYRAYLDKYGNKFQASMGAEAIHKLLQDIDLVKEVDMLKEELKTSQGQRRTRAI

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hypothetical protein F24I3.60 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cross)
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004
C;Accession: T47758
R;Nyakatura, G.; Fartmann, B.; Dauner, D.; Sterr, W.; Holland, R.; Weichselgartner, M.;
submitted to the Protein Sequence Database, February 2000
A;Reference number: Z24475
A;Accession: T47758
A;Accession: T47758
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-258 <NYA>
A;Cross-references: UNIPROT:Q9MIKO; EMBL:AL138655
A;Cross-references: UNIPROT:Q9MIKO; EMBL:AL138655
A;Superimental source: cultivar Columbia; BAC clone F24I3
C;Genetics:
A;Mote: P24I3.60
C;Superfamily: Arabidopsis thaliana hypothetical protein F24I3.60
RESULT 8
T33735
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Nucleic Acids Res. 28, 4317-4331, 200.
A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and
A;Reference number: A83650; MUID:20512582; PMID:11058132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein BH1815 [imported] - Bacillus halodurans (strain C-125) C;Species: Bacillus halodurans C;Species: Bacillus halodurans C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 09-Jul-2004 C;Accession: G83876 C;Accession: G83876 R;Takami, H; Nakasone, K; Takaki, Y; Maeno, G; Sasaki, R; Masui, N; F
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A; Residues: 1-331 < 87
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A;Status: preliminary
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Best Local S
Matches 27
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Experimental source: strain C-125
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                                                                                                              138 VQELIKTVHLLHDVIKHGEVIRYQYGQYNLTKEFTLRENGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            218 GERLFYTLHLQVEKIENYKLNC 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161 KAVANYISTVSATR---LGDNEVMVQISSSKIHNFSISNVLSGLBEDRFVLVDMSSSRSQ 217
                                                                                                                                                              64 IKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKR 104
                                                                                                                                                                                                                      86 LRILADALTTASFISKEETEQMINKLKKLTSHRLADHL-----DNRLLVP-PDRGNRE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84 VDKLFQNLSLIKEHIERQKKRC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28 RLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVPQGID----TLKNQTAHGEA 83
                                                                                                                                                                                                                                                                         7 LSLLA---LGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLC 63
                                                                                                                                                                                                                                                                                                                                                           h 11.1%; Score 77.5;
Similarity 26.7%; Pred. No. 5.
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                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                 43; Indels
                                                                                                                                                                                                                                                                                                                                                                                 Length 331;
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J. Bacteriol. 173, 3644-3655, 1991

J. Bacteriol. 173, 3644-3655, 1991

A,Title: Cloning, sequencing, and expression of Bacillus subtilis genes involved in ATP-C A,Title: Cloning, sequencing, and expression of Bacillus subtilis genes involved in ATP-C A,Title: Cloning, sequencing, and expression of Bacillus subtilis genes involved in ATP-C A,Title: Cloning, sequencing, and expression of Bacillus subtilis genes involved in ATP-C A,Title: Cloning, sequence involved in ATP-C A,Title: The complete genome sequence of the Gram-positive bacterion. Bay 322

A;Reference number: A39432; MUID:91267926; PMID:1646786

A;Reference number: A69580; MUID:91267926; PMID:1646786

A;Reference number: A69580; MUID:91267926; PMID:9384377

A;Reference number: A69580; MUID:91044033; PMID:9384377
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N;Alternate names: ATP-dependent exomuclease synthesis protein AddA
C;Species: Bacillus subtilis
C;Date: 21-Feb-1992 #sequence_revision 21-Feb-1992 #text_change 09-Jul-2004
C;Accession: B39412; H69582
R;KROOlstra, J.; Venema, G.
R;KROOlstra, J.; Venema, G.
J. Bacteriol. 173, 3644-3655, 1991
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RjBalicki, J.; Gibson
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A;Introns: 57/1; 103/2; 185/3; 283/2; 347/3; 426/3
C;Superfamily: Caenorhabditis elegans hypothetical
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c;Species: Caenorhabditis elegans
C;Date: 29-Oct.1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004
C;Accession: T33735
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                                           A; Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                      A; Accession: H69582
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380 C 380
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type:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 NLSLIALGAAYVSAFAVENPMNRLVAETLTL----LSTHRTWLIGDGNLMIPTP-----
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     DNA
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27.3%; Pred. No.
ative 20; Mismatc
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10;
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A; Map position: 3
A; Introns: 104/3
A; Note: F24I3.50
C; Superfamily: Ara
                                                                                                                                                                                                                                                               C;Species: Helicobacter pylori
A;Variety: strain J99
A;Variety: strain J99
C;Date: 12-Feb-199 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Accession: C71914
C;Accession: C71914
C;Accession: Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, B.D.; Doig, P.C.; Smith, D.R.; Ryalm, R.A.; Ling, L.S.L.; Moir, D.T.; King, B.L.; Jiang, Q.; Taylor, D.B.; Vovis, G.F.; Ives, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.B.; Vovis, G.F.; Nature 397, 176-180, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein F24I3.50 - Arabidopsis thaliana (;Species: Arabidopsis thaliana (mouse-ear cress) (;Species: Arabidopsis thaliana (mouse-ear cress) (;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004 (;Accession: T4757 (;Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
T47757
A; Experimental C; Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:Q9M1K1; EMBL:AL138655
A;Experimental source: cultivar Columbia; BAC clone F2413
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Reference number: Z24475
A; Accession: T47757
A; Status: preliminary
                                                                               A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-207 <ARN>
                                                                                                                                                                                                      A;Title: Genomic sequence comparison of two unrelated isolates of the human gastric path A;Reference number: A71800; MUID:99120557; PMID:9923682
                                                                                                                                                                                                                                                                                                                                                                                                                                                        phosphoserine phosphatase - Helicobacter pylori (strain J99)
C;Species: Helicobacter pylori
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A; Residues: 1-253 < NYA>
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C;Keywords: nuc:
F;30-37/Region:
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C;Genetics:
                         A;Cross-references: UNIPROT:Q9ZLI2; GB:AE001491; GB:AE001439; NID:g4155127; PIDN:AAD061
A;Experimental source: strain J99
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                                                                                                                                                                            A; Accession: C71914
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Best Local (
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;30-37/Region: nucleotide-binding motif A (P-loop)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28 RLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGID-----TLKNQTAH 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22 VENPMNRLVAETLTLLSTHRTWLIG--DGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
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23; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDNPY-----YEAMKDYLA 679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GE---RIFYTLHLQVENMDDYKINC 234
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10.7%; Score 74.5;
22.2%; Pred. No. 56;
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A;Title: Sequences of sea urchin kinesin light chain isoforms.
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               kinesin light chain - sea urchin (Strongylocentrotus purpuratus)
C;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Mol. Biol. 231, 155-158, 1993
A;Title: Sequences of sea urchin kinesin light chain isoforms
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33816
A;Status: preliminary
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A; Residues: 1-649 < WED>
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A; Residues: 1-451 < WED>
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C;Superfamily: phosphoserine phosphatase
                         맑
                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:Q05090; EMBL:L10233; NID:g161525; PID:g161526
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Matches 31; Conserv
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                                                                                   104 RCAGERWRVTKFLDYLQVFLG 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             K.P., Knight,
                                                                                                                                                                                                            46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        K.P.; Knight,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46 GDGNLMIPTPENKNHQLC--IKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIBRQKK 103
                                                                                                                                                                                                                                                                      l Similarity
21; Conserv
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                         LVEEKTDIIEKSLESLELGLG
                                                                                                                                                                                                         GDGNLMIPTPENKNHOLC--IKEVFQGIDTLKNQTAHGBAVDKLFQNLSLIKBHIERQKK 103
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                                                                                                                                         GQGNL-----SQEQIITGTREVIKGLEQLKNE--HNDILNSLYQSLKMLKKDTPGDSN
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                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                            10.4%; bred. No. ---
7 25.9%; Pred. No. ---
7-ive 19; Mismatches
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Pred. No. 27
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Pred. No. 10;
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A;Molecule type: mRNA
A;Residues: 1-686 <WED>
A;Cross-references: UNIPROT:Q05090; EMBL:L10235
A;Cross-references: UNIPROT:Q05090; EMBL:L10235
R;Medaman, K.P.; Knight, A.E.; Kendrick-Jones, J.; Scholey, J.M.
submitted to the EMBL Data Library, February 1993
A;Reference number: S36727
A;Accession: S36727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      kinesin light chain isoform 3 - sea urchin (Strongylocentrotus purpuratus)
C;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 08-Dec-1993 #sequence revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S33815; S36727
R;Wedaman, K.P.; Knight, A.E.; Kendrick-Jones, J.; Scholey, J.M.
J. Mol. Biol. 231, 155-158, 1993
A;Title: Sequences of sea urchin kinesin light chain isoforms.
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33815
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C;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S33814
R;Medaman, K.P.; Knight, A.E.; Kendrick-Jones, J.; Scholey, J.M.
J. Mol. Biol. 231, 155-158, 1993
A;Title: Sequences of sea urchin kinesin light chain isoforms.
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33814
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A;Molecule type: mRNA
A;Residues: 1-568'A',570-686 <WE2>
A;Cross-references: EMBL:L10235; NID:g161529; PID:g161530
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A;Residues: 1-677 <WED>
A;Cross-references: UNIPROT:Q05090; EMBL:L10234; NID:g161527; PID:g161528
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Local Similarity 25.9%; Pred. No. 43;
hes 21; Conservative 19; Mismatches
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                                                         104 RCAGERWRVTKFLDYLQVFLG 124
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66 LVEEKTDIIEKSLESLELGLG
                                                                                                                      15 GOGNL-----SQEQIITGTREVIKGLEQLKNE--HNDILNSLYQSLKMLKKDTPGDSN 65
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Search completed: August 4, 2005, 17:11:59 Job time : 30.3695 secs

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Perfect score:
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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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09VKL1
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09MIK1
08EEY1
06ENW7
08SKY3
08SKY3
08FCA2
07XRA1
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Q8WVP7
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Q6FW99
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29-MAR-2004
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CARBOHYD
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PRINTS, PR00432; INTERLEUKINS.
ProDom, PD006721; Interleukin
Cytokine; Glycoprotein; Growth
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InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        expression of biologically active recombinant protein.";
J. Interferon Cytokine Res. 21:361-367(2001).
-i- FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells (F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=21334408; PubMed=11440633; DOI=10.1089/10:
Yang S., Sellins K.S., Weber E., McCall C.;
"Canine interleukin-5: molecular characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-MAR-2004 (Rel. 43, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing factor) (TRP)
(Bosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (S or send an email to license@isb-sib.ch).
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Mammalia; Eutheria;
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBUNIT: Homodimer; disulfide-linked (By similarity) SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: Belongs to the IL-5 family.
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                                                                                                                                                                                                 Similarity
                                                                                    VFLGVINTEWTPES 134
                                                                                                                               QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                                                                                                                       MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWL1GDGNLM1PTPENKNH
                                                                                                                                                                                    MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNH
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Interchain (with C-63) (By similarity).
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
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. No. 3.6e-60;
matches 0;
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15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replac. (Rosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AF025436; AAC64505.1; -.
EMBL; AF051372; AAC05752.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-s
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ProDom; PD006721; Interleukin
Cytokine; Glycoprotein; Growtl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -I- SUBUNIT: Homodimer; disulfide-linked (By similarity)
-I- SUBCELLULAR LOCATION: Secreted.
-I- SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Harley R., Day M.J., Gruffydd-Jones T.J., Harbour D.A., Hel
Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
-i-FUNCTION: Factor that induces terminal differentiation
developing B-cells to immunoglobulin secreting cells (E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98452719; PubMed=9781459; Padrid P.A., Qin Y., Wells T.N.C., Some sequence and structural analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pelis silvestris catus (Cat).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Carnivora, Fissipedia, Felidae, Felis.
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                                                                                                                                               Similarity
                                         QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                            MRMILNISILALGAAYVSAFAVENPMNRLVAETLTLISTHRTWLIGDGNLMIPTPENKNH
                          QLCIEBVFQGIDTLKNRTVPGDAVEKLFRNLSLIKEHIDRQKKKCGGERWRVKKFLDYLQ
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85.1%;
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Interchain (with C-63) (By similarity).
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
KC -> NF (in Ref. 2).
ERWR -> KKWK (in Ref. 2).
X -> N (in Ref. 2).
D -> N (in Ref. 2).
V -> F (in Ref. 2).
V -> LL (in Ref. 2).
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Pred. No. 6.
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of feline interleukin-5 cDNA.
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Q9TSD7;
Q9TSD7;
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01-MAY-2000
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Q9MYM5;
01-OCT-2000
01-OCT-2000
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Vandegriftt E., Hughes K.J.,
Submitted (JUL-1998) to the I
EMBL; AF068770; AAC27616.1;
HSSP; P05113; 1HUL.
SEQUENCE FROM N.A.
TISSUE-Lung;
Johnsen C.K., Grondahl-Hansen J., Johansen R., Jungersen G.
                                                                                                                                                                                                             SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=20130134; PubMed=10663563;
Sylvin H., Matvienko O., leonchike A., Alving K.,
Sylvin H., Matvienko O., and purification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PRO0432; INTERLEUKIN5.
ProDom; PD006721; Interleukin_5; 1.
SEQUENCE 134 AA; 15176 MW; 9A118B78F8CAC820 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor
GO; GO:0006955; P:immune response; IEA.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=IL-5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ) (TrEMBLrel. 15, 0
0 (TrEMBLrel. 15, 1
4 (TrEMBLrel. 27, )
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Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Cetartiodactyla; Suina; Suidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 586; DB 2;
Pred. No. 2.1e-49;
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of pig interleukin-
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Sus.
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Felis.
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EMBL; AJ133452; CAB38328.1; -.
HSSP; P05113; 1HUL.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor |
GO; GO:0006955; F:immune response; IEA.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR009186; Interleukin_5.
Pfam; PF02025; IL5; 1.
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NON TER
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SEQUENCE
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01-MAY-2000
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GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor
GO; GO:0006955; P:immune response; IEA.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        German A.J., Helps C.R., Harley R., Hall E.J., Submitted (SEP-1998) to the EMBL/GenBank/DDBJ (EMBL; AF09113; AAD46991.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR00432; INTERLEUKIN5.
PRODOM; PD006721; Interleukin_5; 1.
SEQUENCE 134 AA; 15191 MW; B485D562A028A899
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Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR00432; INTERLEUKINS.
                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                                                                                                        PD006721; Interleukin_5;
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                    TAHGEAVDKLFQNLSLIKEHIBRQKKRCAGERWRVTKFLDYLQVFLGVINTEW
                                                                               VFLGVINTEWTPES
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TAHGEAVDKLFONLSLIKEHIEROKKRCAGKKWKVTNFLNYLOLFLGVMNTEW
                                                                                                                                                                                                                                                          118
118 AA;
                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                             13507 MW;
                                                                                                                                                                                           93.8%;
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Last annotation update)
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                                                                                                                                                                                           Score 571; DB 2;
Pred. No. 5.3e-48;
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Pred. No. 1.3e-48;
8; Mismatches 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , Day M.J.;
databases.
                                                                                                                                                                                                               Length 118;
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  118
                                         130
                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                    65
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RESULT 7
IL5_BOVIN
ID IL5_B
AC P5217
DT 01-OC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Sim
Matches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replac:
(Bosinophil differentiation factor).
Name=IL5;
Equus caballus (Horse).
Eukaryota; Metazoa; Chordata; Craniata; Vertel
Mammalia; Eutheria; Perissodactyla; Equidae; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HORSE
IL5_BOVIN
P52173;
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IL5_HORSE
002699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EWBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U91947; AAB51382.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PR00432; INTERLEUKINS.
ProDom; PD006721; Interleukin
Cytokine; Glycoprotein; GrowtF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
SUBUNIT: Homodimer; disulfide-linked (By SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                    121
                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                         51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                        VFLGVINTEWTPE 133
                                                                                                                                                                                                                                                                                          QLCIKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQ
                                                                                                                                                                                                                                                                                                                                                                                   MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNH
                                                                                                                                                                  EFLGVINTEWTIE 133
                                                                                                                                                                                                                                                             QLCIEEVFQGIDTLKNQTVQGDAVAKLFQNLSLIKGYIDLQKKKCGGERWRVKQFLDYLQ
                                                                                                                                                                                                                                                                                                                                                          MRMLLHLSVLALGAAYVCALAVESPMNRLVAETLTLLSTHRTLLIGDGNLMIPTPEHKNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycoprotein, Growth factor; Signal.
Glycoprotein, Growth factor; Signal.
19 By similarity.
20 134 Interleukin-5.
63 63 Interchain (with C-105)
105 105 Interchain (with C-63) (
76 76 N-linked (GlcNAc...)
90 90 N-linked (GlcNAc...)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1
20
63
105
76
90
  (Rel. 34, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                 STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata; Craniata; Vertebrata;
Perissodactyla; Equidae; Equus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15081 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2914840E3E7A006D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ± 567;
1.
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                                                 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5e-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (By similarity). (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (By
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RESULT 8
IL5_SHEEP
ID IL5_S
AC Q2858
DT 01-NO
DT 01-NO
DT 05-JU
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Best Local &
Matches 107
115 SHEEP
Q28586;
Q1-NOV-1997
Q1-NOV-1997
Q5-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytokine;
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=97075944; PubMed=8918267; DOI=10.1016/0378-1119(96)00252-1; Mertens B., Gobright E., Seow H.F.; "The nucleotide sequence of the bovine interleukin-5-encoding cDNA. Gene 176:273-274(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-1996 (Rel. 34, Last sequence upd 05-UUL-2004 (Rel. 44, Last annotation u Interleukin-5 precursor (IL-5) (T-cell (Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Z67872; CAA91779.1; -.
PIR; JC5116; JC5116.
HSSP; P05113; 1HUL.
InterPro; IPR00979; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=IL5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR00432; INTERLEUKINS.
ProDom; PD006721; Interleukin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               similarity).
SUBUNIT: Homodimer; disulfide-linked.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: Factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells (B
                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                  MRMLLNLSLLALGAAYVSAFAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNH
||| |:|:|:||||| | ||::||
MRMHLHLTLVALGAAYVCANAVESTMNRLVAETLTLLSSHRTLLIGDGNLMIPTPQHTNH
                                                                                                                                                                                                                                        VFLGVINTEWTPES
                                                                                                                                                                                                                                                                                                        VELGVINTEWIMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein; Growth factor;
1 21 Bv eimin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105
105
105
90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       134
63
105
76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79.2%;
                                                                                                                                                                                                               134
                                                                                                                                                                                                                                                         134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Interchain (with C-105) (By similarity).
Interchain (with C-63) (By similarity).
N-linked (GlCNAc. . .) (Potential).
N-linked (GlCNAc. . .) (Potential).
; 0B3A2328EE7431F4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 551; DB 1;
Pred. No. 5.6e-46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               By similarity.
Interleukin-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
                                                                                               132
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Signal
                                                                                               ⋛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor)
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(Rel. 35, Created) (Rel. 35, Last seq (Rel. 44, Last ann

sequence up annotation

update)

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RESULT
Q8MKH1
ID Q8
AC Q8
DT 01
DT 01
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Best Local S
Matches 104
  Q8MKH1;
Q8MKH1;
01-OCT-2002
01-OCT-2002
                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                   DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U17053; AAB60629.1; -.
EMBL; U17052; AAB60629.1; JOI
EMBL; U35038; AAC99991.1; -.
HSSP; P05113; JHUL.
InterPro; IPR009079; 4_helix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seow H.-F., David M.-J., McWaters P.G., Hurst L., Wood P.R.; "Cloning of ovine interleukin-5 cDNA."; Submitted (AUG-1995) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Factor that induces terminal differentiation of late-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
Bryson C.E., Viney E.
Submitted (JUL-1995)
                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00432; INTERLEUKINS. ProDom; PD006721; Interleukin Cytokine; Glycoprotein; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caprinae; Ovis.
NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                   Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ovis aries (Sheep).
                                                                                                                                                                                                                                                                                                                                                                                                               InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=IL5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Interleukin-5 precursor (IL-5) (T-cell replacing
(Bosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    similarity).
SUBUNIT: Homodimer; disulfide-linked (By SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       developing B-cells
                                                                                                                   123
                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                  Pro; IPR000186; PF02025; IL5; 1
                                                                                                                                                                                                                                    104;
                                                                                                                                          61
                                                                                                                                                                 63
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                                                                                                                                                                                                             ω
                                                                                                                                                                                                                                               Similarity
                                                                                                             LGVINTEWTPES 134
                                                                                                                                        FROM N.A.
F., David M.-J.,
                                                                                              LGVINTEWIMES
                                                                                                                                                                                                                                                                                                                                                               Glycoprotein; Growth
                                                                                                                                                                                                                                                                                1
20
61
103
74
88
132
                                                                                                                                                                                                                                    Conservative
 (TrEMBLrel. 22, TrEMBLrel. 22,
                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                 AA,
                                                                                                                                                                                                                                                                                            132
61
103
74
88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
                                                                                                                                                                                                                                                                                  14974
                                                                                                                                                                                                                                             77.0%;
78.8%;
                                                                                                                                                                                                                                                                                                                                                                                                              Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to immunoglobulin secreting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brandon M., Boyd A.W.; the EMBL/GenBank/DDBJ
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.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOINED
                                                                                                                                                                                                                                    15;
Created)
Last seq
                                                                                                                                                                                                                                                                                           Interchain (with C-103)
Interchain (with C-61) (
N-linked (GlcNAc. . .) (
N-linked (GlcNAc. . .)
                                                                                                                                                                                                                                              Score 536; DB 1;
Pred. No. 1.6e-44
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HSSP; P05113; 1HTL.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor
GO; GO:0005137; P:immune response; IEA.
InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                    Honjo T.;
"Cloning of cDNA for human T-cell replacing comparison with the murine homologue.";
Nucleic Acids Res. 14:9149-9158(1986).
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                                  SEQUENCE FROM N.A.
MEDLINE=88059042; PubMed=2824500;
MEDLINE=88059042; PubMed=2824500;
MEDLINE=88059042; PubMed=2824500;
Mizuta T., Noman
"Molecular cloning and structure of the
"Molecular cloning and structure of the
J. Biol. Chem. 262:16580-16584(1987).
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P05113; Q13840;
13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
15-OCT-2004 (Rel. 45, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing factor) (TRF)
(Eosinophil differentiation factor) (B cell differentiation fac
                                                                                                                                                                                                                                                          MEDLINE=87066782; PubMed=3024129;
Azuma C., Tanabe T., Konishi M., Kinashi
Yaoita Y., Takatsu K., Hammarstroem L.,
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Mammalia; Eutheria;
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PRINTS; PR00432; INTERLEUKIN5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
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SEQUENCE
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Catarrhini;
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                                                                f., Honjo T.;
human interleukin-5
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Cebinae; Saimiri.
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Severinson
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REPRESE REPRESE
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"A novel dimer configuration revealed by the crystal struct A resolution of human interleukin-5.";
Nature 363:172-176(1993).
-I- FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells.
-I- SUBUNIT: Homodimer; disulfide-linked.
-I- SUBCELLULAR LOCATION: Secreted.
-I- SIMILARITY: Belongs to the IL-5 family.
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Yokota T., Coffman R.L., Hagiwara H., Rennick D.M., Takebe Y.,
Yokota T., Coffman R.L., Shrader B., Yang G., Meyerson P., Luh J.,
Yokota K., Gemmell L., Shrader B., Yang G., Meyerson P., Luh J.,
Hoy P., Pene J., Briere F., Spits H., Banchereau J., de Vries J.,
Lee F.D., Arai N., Arai K.;
"Isolation and characterization of lymphokine cDNA clones encoding
mouse and human IgA-enhancing factor and eosinophil colony-stimulat
factor activities: relationship to interleukin 5.";
Proc. Natl. Acad. Sci. U.S.A. 84:7388-7392(1987).
                                                                                     EMBL;
                                                                                                                                                                                                    the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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X-RAY CRYSTALLOGRAPHY (2.4 ANGSTROMS).
MEDLINE=93247642; PubMed=8483502; DOI=10.1038/363172a0;
MEDLINE=93247642; PubMed=8483502; DOI=10.1038/363172a0;
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Honjo T., Takatsu
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DATABASE: NAME=R&D Systems' cytokine mini-reviews: IL5;
WWW="http://www.rndsystems.com/asp/g_sitebuilder.asp?bodyId=207"
; X04688; CAA28390.1; -.
; J003478; AAA74469.1; -.
; J02971; AAA98620.1; -.
; X12705; CAA31210.1; -.
; X12706; CAA31211.1; -.
; AF353265; AAK19759.1; -
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107:292-297(1990).
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99868; PubMed=2361960;
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CONFLICT
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                                                                                                                                                                        P46685;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interlaukin-5 precursor (IL-5) (T-cell replac
(Eosinophil differentiation factor).
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                                                                                                  Cercocebus torquatus atys (Red-crowned mangabey) (Sooty ma
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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ProDom; PD006721; Interleukin_5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GO; GO:0005576; C:extracellular; TAS.
GO; GO:0005137; F:interleukin-5 receptor binding;
GO; GO:0009626; P:hypersensitive response; TAS.
GO; GO:0009629; P:inflammattory response; TAS.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
 STRAIN=FUj;
MEDLINE=96003435;
                                    SEQUENCE FROM N.A.
                                                                Cercopithecinae;
NCBI_TaxID=9531;
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134 AA,
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IL5.
     PubMed=7561102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61.8%;
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Pred. No. 3.
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C-63).
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                                                                                                                                         (Sooty mangabey)
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P48093;
01-FEB-1996
01-FEB-1996
05-JUL-2004
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CARBOHYD
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Mammalia; Eutheria; Primates;
Cercopithecinae; Macaca.
NCBI_TaxID=9544;
                                                                                                                                                                                                                                            01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing (Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00432; INTERLEUKIN5.
ProDom; PD066721; Interleukin 5; 1.
Cytokine; Glycoprotein; Growth fact.
SIGNAL 1 19 By sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                          SEQUENCE FROM N.A. TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; L26033; AAA99971.1; -. HSSP; P05113; 1HUL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
MEDLINE=96003435; PubMed=7561102; Villinger F.J., Brar S.S., Mayne
                                                                                                                                                                                                      Macaca mulatta (Rhesus macaque).
                                                                                                                                                                                                                                Name=IL5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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InterPro; IPR000186; Interleukin_5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   134 AA;
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N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).
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Pred. No. 4.9e-34;
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                                                                                                                                                           Craniata; Vertebrata; Butele Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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    Ansari A.A.;
                                                                                                                                                                                  Euteleostomi;
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SEQUENCE
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    SEQUENCE FROM N.A.

MEDLINE=96289181; PubMed=8764226;

Mansour M., Karmilowicz M., Hawrylik S.J., Nalcerio B.,

Mansour M.J., Lilly C.M., Drazen J.M., Lee S.E., Auperir

de Wet J.R., Cohan V.L., Showell H.J., Danley D.E.;

"Production and characterization of guinea pig IL-5 in ]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U19848; AAA86710.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
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SIGNAL
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ProDom; PD006721; Interleukin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   similarity).
SUBUNIT: Homodimer; disulfide-linked
SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: Belongs to the IL-5 family
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Pred. No. 9.7e
.6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Interchain (with C-105) (By similarity).
Interchain (with C-63) (By similarity).
O-linked (By similarity)
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
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                                                                                                                                                                                       Craniata; Vertebrata;
Hystricognathi; Caviic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5, 1
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.7e-34;
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           in baculovirus.
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Best Local S
Matches 87
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Probom; PD006721; Interleukin 5
Cytokine; Glycoprotein; Growfi
SIGNAL 1 19
CHAIN 20 135 IN
DISULFID 64 64 IN
DISULFID 106 106 IN
CARBOHYD 77 77 N-
CARBOHYD 91 91 N-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MERUN
                                                                                                                                                                                                                                                                                              ILS MERUN STANDARD; PRT; 132 AA. 062575; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Interleukin-5 precursor (II-5) (T-cell replacing (Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U34588; AAB61357.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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  Submitted (MAY-1995) to the -!- FUNCTION: Factor that in developing B-cells to im
                                                                                                                                                                                                                 Meriones unguiculatus (Mongolian jird) (Mong
Bukaryota; Metazoa; Chordata; Craniata; Ver
Mammalia; Eutheria; Rodentia; Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                        TISSUE=Spleen;
Mai Z., Klei T.R.;
                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       Name=IL5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                NCBI_TaxID=10047;
                                                                                                                                                                                                Meriones
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SUBUNIT: Homodimer; disulfide-linked (B: SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
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ysiol. 270:L1002-L1007(1996).
TON: Factor that induces terminal differentiation
oping B-cells to immunoglobulin secreting cells (B
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    ne EMBL/GenBank/DDBJ databases.
induces terminal differentiation
immunoglobulin secreting cells ()
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By similarity.
Interlaukin-5.
Interchain (with C-106) (By
Interchain (with C-64) (By
Interchain (with C-64) (By
N-linked (GlCNAc. .) (Pot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 414.5;
Pred. No. 1.3e
L4; Mismatches
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No. 1.3e-32;
                                                                                                                                                                                                                   (Mongolian gerbil).
; Vertebrata; Euteleostomi;
athi; Muridae; Gerbillinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (By
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SIGNAL
CHAIN
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              Gene
                                                               Houard S.,
Bollen A.,
                                                                TISSUE=Spleen;
PubMed=11054577; DOI=10.1016/S0378-1119(00)00366-8;
PubMed=1054577; DOI=10.1016/S0378-1119(00)00366-8;
Houard S., Jacquet A., Haumont M., Daminet V., Milican
                                                                                                                                                                                                                                                                        Q9ESI9;
28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; L37780; AAA65675.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                    Sigmodon hispidus (Hispid cott
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                   28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing
(Bosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00432; INTERLEUKINS
ProDom; PD006721; Interleukin
                                     "Cloning, expression interleukin-5.";
                                                                                                                                                       Sigmodon
                                                                                                                                                                                                          Name=IL5;
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                                                                                                                   SEQUENCE
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            # 257:149-155(2000)
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    -!- SUBUNIT: Homodimer; disulfide-linked.
    -!- SUBCELLULAR LOCATION: Secreted.
    -!- SIMILARITY: Belongs to the IL-5 family.

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Interchain (with C-61) (By similarity).
Interchain (with C-61) (By similarity).
N-linked (GlCNAC. . .) (Potential).
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                                                                                                                                                                                                                                                                                                                                                                                                                             Sequences AAY58219-Y58220 represent encoded and mature canine interleukin CC -5 (IL-5). The invention relates to canine IL-4, canine or feline Plt-3 CC canine IL-5, canine or feline Plt-3 CC canine IL-5, canine or feline CD40, canine or feline CD54 (CD40 ligand), CC canine IL-5, canine IL-13, feline interferon-alpha (ITM-alpha) and feline CC qranulocyte macrophage colony-stimulating factor (GMCSP), and nucleotides CC which encode these immunoregulatory proteins. The proteins, their CC associated nucleic acids, specific antibodies and inhibitors may be used CC as vaccines for therapeutic or prophylactic regulation of an immune CC response in animals (particularly cats, dogs, horses and humans). They CC may be used to treat autoimmune or infectious diseases including CC allergies, tumours, inflammation and graft rejection, and to increase the CC response from a co-administered antigen. The nucleotide sequences can CC also be used for the recombinant production of a protein, while CC nucleotide fragments are useful as probes, as amplification primers and CC also be used for the recombinant production of a protein, while cc factivity, while the antibodies may be used in detection, and in drug
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-DEC-1999.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY58220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HBSK-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunoregulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3h; Page 227; 264pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HESKA CORP
HGEAVDKLFONLSLIKEHIEROKKRCAGERWRVTKFLDYLOVFLGVINTEWTFES
                                                                                                FAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTA
                                                                                                                                 FAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVPQGIDTLKNQTA
                                                                                                                                                                                                                        100.0%; Score 610; DB 3; llarity 100.0%; Pred. No. 2.6e-64; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US011942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumour; cancer; autoimmune disease; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126
132
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AAB45520
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wonderling RS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
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                                                                                                                                                                                                                                                                                     Length 115;
                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aab45514 Modified 
Aab45520 Modified
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RESULT 2
AAY50219
ID AAY50219
AAY50219
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AAY AAY50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequences AAY58219-Y58220 represent encoded and mature canine interleukin CC - 5 (IL-5). The invention relates to canine IL-4, canine or feline Plt-3 CC ligand, canine or feline CD104, canine cD154 (CD40 ligand).

CC canine IL-5, canine II-13, feline interferon-alpha (IFN-alpha) and feline Cgranulocyte macrophage colony-stimulating factor (GMCSF), and nucleotides which encode these immunoregulatory proteins. The proteins their cassociated nucleic acids, specific antibodies and inhibitors may be used a vaccines for therapeutic or prophylactic regulation of an immune cresponse in animals (particularly cats, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including allergies, tumours, inflammation and graft rejection, and to increase the cresponse from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while can be used for the recombinant production of a protein, while can concleotide fragments are useful as probes, as amplification primers and concleotide fragments are useful as probes, as amplification, and in drug of activity, while the antibodies may be used in detection, and in drug
                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 115; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY58219;
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding immunoregulatory proteins from cats or dogs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAZ55546, AAZ55547, AAZ55548, AAZ55549.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-MAY-1998;
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immunoregulation; tumour; cancer; autoimmune disease; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Canine interleukin-5 (IL-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HESK-) HESKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-072623/06.
80
                                        61 HGRAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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                                                                                                                         for treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 224; 264pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0087306P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dreitz MJ, Wonderling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; 134 AA.
                                                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                         Score 610; DB 3;
Pred. No. 3.2e-64;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tumors or autoimmune disease
                                                                                                                                                                                                                                                                                                                      Length 134;
                                                                                                                                                                                                                                                             Indels
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RESULT 3

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AAB72615
IID AAB7
XX AAB7
XX O4-M
XX Cani
XX Dog;
XX Dog;
XX WO20
MY WO20
XX WO21
PM WO21
XX III-II
XX WO21
XX WO21
XX WO21
XX III-II
XX WO21
XX III-II
XX WWI;

AAWO8479
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AAWO8479
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AC
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Best Local S
Matches 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention provides the protein and coding sequences of the canine interleukin-5 (II-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the II-5 protein shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Guo H,
                                                                                                                                                                                                                              Cytokine; ovine; sheep; interleukin-5; interleukin-12; IL-5; IL-12; livestock; cow; stress; transport; vaccine adjuvant; veterinary; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel canine interleukin 5 polymucleotide generating antibodies which are useful in
                                                                                                                 early haematopoietic progenitor cell; cytotoxic cell; thymocyte;
                                                                                                                                                          immunosuppression; allergy; reproductive system; growth; early maturity;
antibody; diagnosis; immunopotentiator;
                                                                                                                                                                                                                                                                                                                                                        Ovine IL-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                 17-OCT-2003
24-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW08479;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (IDEX-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Canine interleukin-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-MAY-2001
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                                                                             secretion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW08479 standard; protein; 132 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-191542/19.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF74300.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FAVENPMNRLVAETLITLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTA
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                                                                             IgM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
(first entry)
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                                                                             IgA; bacterial endotoxin; gamma-interferon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mermer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.5%;
99.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 601; DB 4;
Pred. No. 3.8e-63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and polypeptides are used treating allergies in dogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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This protein sequence represents ovine interleukin-5 (IL-5). Ovine IL-5 (C or IL-12 are used to treat and/or prevent infections in livestock (esp. CC cows and sheep), particularly where the animals are stressed, e.g. during CC transport IL-5 and IL-12 can also be used as adjuvants in vaccines for CC veterinary use (partic. weakly immunogenic subunit or synthetic peptide vaccines). They may also be used to treat cancer, immunosuppression and CC allergy, to enhance/suppress the reproductive system and to promote CC growth or early maturity. Optionally interleukin can be delivered from CC constructs or delivery cells and antibodies are useful in enzyme constructs or delivery cells and antibodies are useful in enzyme constructs or delivery cells and antibodies are useful in enzyme constructs or delivery cells and antibodies are useful in enzyme constructs or delivery cells and antibodies are useful in enzyme constructs or delivery cells and generation of cytotoxic cells from CC haematopoistic progenitor cells and generation of cytotoxic cells from CC thymocytes, also it stimulates production and secretion of IgM and IgA CC (in synergism with bacterial endotoxin). IL-12 induces production of CC gamma-interferon by, and proliferation of, T and NK cells and increases CC can also be used for in vitro production of IL-5 or -12. (Updated on 17-CC OCT-2003 to standardise OS field)
                   Query Match
Best Local Similarity
                                                                                 Sequence 132 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 31; Page 39-40; 78pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seow H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUN-1995;
27-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                adjuvants
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1997-077528/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              acid encoding ovine interleukin-5 or -12 - used ts and to treat or prevent microbial infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAT50755, AAT50756
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95AU-00006244.
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                   79.8%;
; Score 487; DB 2;
; Pred. No. 1.4e-49;
13; Mismatches 9
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                                        Length 132;
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                62
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AVENPMARLVAETLITLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAH
                                AVESTMIRLVAETLTLLSTHQTLLIGDGNLMIPTPQHTNHQLCIEEVFQGIDTLKNQTAQ
                                                                Conservative
                                                                9
                                                                Indels
                                                                0
                                                                Gaps
                                 78
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03-JUN-2004
                            ADL89254;
                                                         ADL89254 standard; protein; 115
(first entry)
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Human modified cytokine protein #536.

RESULT 5
ADL89254
IID ADL8
XX
AC ADL8
XX
DT 03-J
DT 03-J
DT Huma
XX
Huma
KW Huma
KW 10ng
KW alle
KW anti
KW neur long-chain cytokine family, short-chain cytokine family, infection; altery; heart disease; cancer; liver disease; autoimmune disease; growth diseorder; diabetes; neurodegenerative disease; antimicrobial; antiallergic; cytostatic; immunosuppressive; antidiabetic; Human; cytokine; proteolysis; neuroprotective; interferon; IFN; interleukin-10;

Ovis aries

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AAAP93152
ID AAAP9
XX AAAP9
AC AAAP9
XX IS-M
X
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Best Local S
Matches 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    resistance to proteolysis compared to unmodified cytokines. The invention also relates to nucleic acid molecules encoding the cytokines, a pharmaceutical composition comprising a nucleic acid molecule in a pharmaceutical carrier, and a method of generating a protein or peptide molecule having a predetermined property or activity, or a pre-selected altered phenotype. The modified cytokine is selected from a member of the interferons (IFNs)/interleukin (II)-10 protein family, a member of the long-chain cytokine family or a member of the short-chain cytokine family. The composition and method are useful for diagnosing and treating diseases such as infections, allergies, heart diseases or neurodegenerative diseases. This sequence represents a human modified cytokine for the interferon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
Synthetic.
     12-APR-1988;
                                                                                                                                                                                                                             B-cell growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAP93152 standard; protein; 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; SEQ ID NO 588; 316pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New modified cytokines with increased resistance to proteolysis, useful for diagnosing and treating diseases such as infections, allergies, headiseases, cancer, liver disorders, autoimmune diseases or diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-SEP-2002; 2002US-0409898P.
21-MAR-2003; 2003US-0457135P.
                                                        25-OCT-1989
                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                         Sequence of human interleukin-5 (IL-5).
                                                                                                                                                                                                                                                                                                                                                                                                           AAP93152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to modified cytokines that exhibit increased
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                                                                                                                 GB2217328-A
                                                                                                                                                                                                                                                                                                                                                  15-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytokine protein of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64 AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                factor; lymphokine; B-cell
     88GB-00008524
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 358; DB 8;
; Pred. No. 2.7e-34;
16; Mismatches 26
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                                                                                                                                                                                                                                stimulating factor
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ADL89235
ID ADL89235
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Best Local S
Matches 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; cytokine; proteolysis; interferon; IFN; interleukin-10; II-10; long-chain cytokine family; short-chain cytokine family; infection; allergy; heart disease; cancer; liver disorder; autoimmune disease; growth disorder; diabetes; neurodegenerative disease; antimicrobial; antiallergic; cytostatic; immunosuppressive; antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 113 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAN91647 has restriction sites for HinDIII, BspMI, NcoI, SpeI, BspMII, ApaLI, XmnI, ClaI, BalI, PstI, DraIII, BamHI and EcoRI. IL5 acts as a cell growth and differentiation factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 3a; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1989-311767/43.
N-PSDB; AAN91647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human modified cytokine protein #517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADL89235 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic gene encoding human interleukin-5 - has restriction sites frequent intervals to facilitate manipulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-APR-1988;
                       New modified cytokines with increased resistance to proteolysis, useful for diagnosing and treating diseases such as infections, allergies, hea diseases, cancer, liver disorders, autoimmune diseases or diabetes.
                                                                                                                                                                                                                                                                                                        09-SEP-2002; 2002US-0409898P.
21-MAR-2003; 2003US-0457135P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADL89235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Edwards
                                                                                                                                                                                                                                                                                                                                                                                             08-SEP-2003; 2003WO-IB004347.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2004022593-A2
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                                                                                                                                                                                                                                                       (NAUT-)
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                                                                                                                                           2004-248447/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GTVERLEKNISLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES 113
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                                                                                                                                                                                             ₹
                                                                                                                                                                                                                                                       NAUTILUS BIOTECH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                Guyon T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88GB-00008524.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58.5%;
                                                                                                                                                                                             Vega
                                                                                                                                                                                                X,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 357; DB 1;
Pred. No. 3.5e-34;
                                                                                                                                                                                                Drittanti L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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heart

Disclosure; SEQ

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569; 316pp; English.

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RESULT 8
AAO30459
ID AAO33
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XX Mult
XW Mult
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OS Unii
SOS Chin
XX Homc
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Best Local S
Matches 70
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                           (PHAR-)
(KLYS/)
(NIEL/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Multimeric protein; interleukin 5; IL5; TNFalpha; inflammatory disease; tumour necrosis factor alpha; gene therapy; arthritis; interleukin 5; IL5; epitope; human; tetanus toxoid; chimeric; variant; mutant; mutein.
                                                                                                                                           16-NOV-2001; 2001DK-00001702
16-NOV-2001; 2001US-0331575P
                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hIL5.36 variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-SEP-2003
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                                                                                                                                                                                                                            15-NOV-2002; 2002WO-DK000764
                                                                                                                                                                                                                                                                                                                                                  WO2003042244-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytokine protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                64 TVERLFKNISIIKKYIDGQKKKCGBERRRVNQFLDYLQEFLGVMNTEWIIES 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64 AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
PHARMEXA AS.
) KLYSNER S.
) NIELSEN F S.
) BRATT T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 ENPMNRLVAETLITLISTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Tetanus toxoid P30 epitope"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "Mature hIL5.36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Human IL5 leader peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                            note=
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                                                                                                                                                                                                                                                                                                                                                                                                            "Tetanus toxoid P2 epitope"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 357; DB 8; Length 115; Pred. No. 3.6e-34; 6; Mismatches 26; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to immunogenic analogues of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TMF, TMFalpha) and methods for production of immunogenic analogues. The immunogenic analogue is useful for preparing a composition for treating inflammatory diseases, e.g., arthritis. It is also used in gene therapy. The present sequence is a fusion construct variant which comprises 2 human interleukin 5 (IL5) monomers joined by diglycine linker and including terminally positioned tetanus toxoid epitopes P30 and P2. This sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                     Pleiotropic immune factor; PIF; immune system mediator; IgA; immunoglobulin secretion; eosinophil-colonny stimulating factor; B-cell differentiation factor.
           New human pleiotropic immunoglobulin prodn.
                                                      WPI; 1988-134622/20.
                                                                                                                                    10-NOV-1986;
05-JAN-1987;
                                                                                                                                                                            10-NOV-1987;
                                                                                                                                                                                                                                                                                                                                           Pleiotropic
                                                                                                                                                                                                                                                                                                                                                                      25-MAR-2003
20-NOV-1990
                                                                                                                                                                                                                                                                                                                                                                                                               AAP80279;
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAP80279 standard; protein; 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 287 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 20; Page 115-117; 196pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New immunogenic analogue of a polymeric protein, useful for preparing composition for treating inflammatory diseases e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-449558/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klysner S,
                                                                            Coffman R,
                                                                                                                                                                                                       18-MAY-1988
                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (WOLD/) VOLDBORG B. (MOUR/) MOURITSEN S.
                                                                                                         (SCHE ) SCHERING BIOTECH CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103 GTVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63 EAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 VENPMARLVAETLILLSTHRTWLIGDGNLMIPTPENKHPQLCIKEVFQGIDTLKNQTAHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70;
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                                                                              Yokota T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                           immune
                                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                    86US-00928900.
87US-00000551.
                                                                                                                                                                            87EP-00309935
                                                                                                                                                                                                                                                                                                                                            factor (PIF)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58.5%;
            immune factor and mutant forms - and new DNA coding sequences.
                                                                               Crute JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bratt T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 357; DB 6;
Pred. No. 1.3e-33;
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                                                                              Lee F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Voldborg B,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 287
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                           for stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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AAP81038
ID AAP81
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XX 21-SE
XX WPI;
XX WPI;
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Best Local S
Matches 70
      Matches
                                   Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Recombinant human B-cell differentiation factor - used for diagnosis or treatment of immuno:deficiency diseases, various infections and cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 112
                                                                                                                            Sequence 115
                                                                                                                                                                                                                   BCDF has an approx. molecular weight of 13,149. The BCDF is useful in the diagnosis or treatment of e.g. immunodeficiency diseases which occur due to the deficiency of this factor in a living body and also in the treatment of various infections and cancers. (Updated on 25-MAR-2003 to
                                                                                                                                                                                                                                                                                                                                                                         Claim 8; Page 17; Spp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1988-085927/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Honjo T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-SEP-1986;
21-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAR-1988
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04-DEC-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunodeficiency
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      70;
                                                                                                                                                                                            PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Takatu K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIPQGIGTLESQTVQGG
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                                                                                                                                                                                            field.)
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Conservative
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(first entry)
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87JP-00236842.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; 115
58.4%; Score 356; DB 1; 62.5%; Pred. No. 4.7e-34; tive 16; Mismatches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58.4%; Score 356; DB 1;
62.5%; Pred. No. 4.5e-34;
Live 16; Mismatches 26
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                                                            DB 1; Length 115;
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RESULT 12 ABG94295 ID ABG9 XX

ABG94295 standard; protein; 115

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Best Local :
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                                                                                                                                                                                                              The present invention is concerned with methods of treating asthma, eosinophilia, allergic rhinitis and other allergic diseases. These involve the use of interleukin-5 (IL-5) analogues and modified IL-5 proteins and their coding sequence down-regulate IL-5 activity and thus reduce eosinophil numbers. The allergic diseases may be treated using autovaccines, nucleic acid vaccines or live vaccines. In addition, it is possible that they may be used in the treatment of cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-1999;
06-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Asthma; IL-5; interleukin-5; allergy; cytokine; helminthic infection; cancer; eosinophilia; vaccine; allergic rhinitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human interleukin-5 mature protein SEQ ID NO: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB45489;
                                                                                                                                                                       Sequence 115 AA;
                                                                                                                                                                                                                                                                                                                                                          Down-regulating interleukin 5 (IL-5) activity in humans by administ IL-5 and/or an IL-5 analogue, useful in the treatment, prophylaxis amelioration of asthma or other chronic allergic conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB45489 standard; protein;
                                                                                                                                                                                                                                                                                                                               Claim 19; Page 118; 172pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-672791/65
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Klysner S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-APR-2000; 2000WO-DK000205
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                                                                                                                                                                                                     helminthic infections
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                64 AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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                                                                                                                             Similarity
TVERLEKNISLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES 115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG
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                                                        EIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG
                                                                            ENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE
                                                                                                               Conservative
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99US-0132811P.
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                                                                                                                             58.4%; Score 356; DB 3; 62.5%; Pred. No. 4.7e-34;
                                                                                                                 16;
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                                                                                                                                                                                                                                                                                                          at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment the site, where the antigen or antigenic determinant is amyloid beta peptide (Abetal-42) or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant, where the second attachment site is cor antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and coepable of forming a capabid which comprises mutant Obeta coat protein capable of forming a capabid which comprises mutant Obeta coat protein capable of forming a capabid which comprises mutant Obeta coat protein capable of forming a capabid which comprises mutant Obeta coat protein capable of forming a capacid sequences of forming an amino acid sequences of fully defined in the specification. The compounds of the invention may be used in the antigenic activities and may be used in
                                                                                                                                                 Query Match
Best Local S
Matches 70
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Piossek C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of non-natural conjuin and a core particle of natural origin and an organiser comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JAN-2001; 2001US-0262379P.
04-MAY-2001; 2001US-0288549P.
05-OCT-2001; 2001US-0326998P.
07-NOV-2001; 2001US-0331045P.
                                                                                                                                                                                                                                                         antiviral, antidiabetic, or hypoglycaemic activities and may be used in immunisation and as a vaccine. The present sequence represents a protein sequence used to create the compositions of the invention
                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 422; 441pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JAN-2002; 2002WO-IB000166.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molecular antigen array used
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vaccine; infectious disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human mature interleukin 5 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-DEC-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     invention relates to
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TVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIBS 115
                 AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
                                                                                              ENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE 63
                                                                      EIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG
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                                                                                                                                                                 58.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a novel ordered and repetitive antigen array
                                                                                                                                                 16;
                                                                                                                                                                 Pred. No. 4.7e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in the production of vaccines for infectious
                                                                                                                                             Mismatches
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                                                                                                                                                                                  5; Length 115
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The invention relates to a composition comprising: (a) a non-natural molecular scaffold comprising: (1) a core particle of a non-natural origin; and (2) a core particle of a non-natural origin; and (i) an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond; (b) an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta 1-42) or its fragment, and where the second attachment site is selected from: (1) an attachment site not naturally occurring with the antigen or antigenic determinant; and (ii) an attachment site naturally occurring with the antigen or antigenic determinant; where the second attachment site is association through at least one non-peptide bond to the first attachment site; and where the antigen or antigenic determinant and the second interact.

Disclosure;

Page 399; 418pp; English

through the association to form an ordered and repetitive antigen Also included is a process for producing a non-naturally occurring ordered and repetitive antigen array. The composition is used in

array

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RESULT 13
ABG80607
ID ABG80607
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Renner WA,
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04-MAY-2001; 2001US-0288549P.
05-OCT-2001; 2001US-032698P.
07-NOV-2001; 2001US-0331045P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Molecular antigen array used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-636514/68
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Bachmann l
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Sebbel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         production of vaccines for infectious
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                                                                                                                                                                                                                                                                                                                    (PHAR-)
(KLYS/)
(NIEL/)
(BRAT/)
(VOLD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-NOV-2001; 2001DK-00001702
16-NOV-2001; 2001US-0331575P
                                                           New immunogenic analogue composition for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-NOV-2002; 2002WO-DK000764.
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tumour necrosis fact
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Disclosure; Page 105; 196pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human mature
                                                                                                                                                                                                                          Klysner
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BRATT T.
VOLDBORG B.
MOURITSEN S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   interleukin 5;
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                                                           of a polymeric inflammatory di
                                                                                                                                                                                                                          Bratt
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Pred. No. 4.7e-34;
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                                                                                                                                                                                                                       Voldborg B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IL5; TNFalpha; inflammatory disease;
therapy; arthritis; interleukin 5;
                                                        ic protein, useful
diseases e.g. art!
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                                                           erul for preparing arthritis.
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The invention relates to immunogenic analogues of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNFalpha) and methods for production of immunogenic

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RESULT 15
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Best Local S
Matches 70
The invention relates to a composition comprising a virus-like particle and at least one antigen, which is a protein or peptide of interleukin (II)-5, II-13 or eotaxin and is bound to the virus-like particle, or a core particle with at least one first attachment site and at least one antigen with at least one second attachment site, where the antigen is a protein or peptide of II-5, II-13 or eotaxin. The second attachment site is an attachment site naturally or not naturally occurring with the antigen or antigenic determinant. The second attachment site is capable of association to the first attachment site, and where the antigen or antigenic determinant and the core particle interact through the association to form an ordered and repetitive antigen array. The compositions are useful as medicaments, or for manufacturing a medicament or a vaccine for treating allergic eosinophilic diseases, e.g. asthma, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        analogues. The immunogenic analogue is useful for preparing a for treating inflammatory diseases, e.g., arthritis. It is al gene therapy. The present sequence is human mature IL5 protei sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                         07-NOV-2001; 2001US-0331045P.

18-JAN-2002; 2002US-00059902.

21-JAN-2002; 2002WO-IB000166.

19-JUL-2002; 2002US-0396636P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 115 AA;
                                                                                                                                                                                                                                                            Composition comprising an ordered and repetitive antigen or antigenic determinant array, useful as a medicament, or for manufacturing a medicament for treating allergic eosinophilic diseases, e.g. asthma, chodgkin's lymphoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human interleukin-5
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                                                                                                                                                                                                                                                                                                                                                                             Bachmann
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  allergic eosinophilic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   processed
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Pred. No. 4.7e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for repetitive antigen
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                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hodgkin's lymphoma
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US-09-5107-503-9970-44
     sequence
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     5, Appli 14, Appli 19, App
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Result

Score

Length

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Query Match

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ALIGNMENTS

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APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: Monderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT APPLICATION NUMBER: 05/087,306
EARLIER APPLICATION NUMBER: 60/087,306
BARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 66
TENGTON. 116
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; ORGANISM: Canis familiaris
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SEQ ID NO 86
LENGTH: 115
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                                                Matches 115;
                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 86, Application US/09451527
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                      PILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
                                                                                                                                                                                                                                                                                        EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
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APPLICANT: Yang, Shumin
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; TYPE: PRT
; ORGANISM: Canis familiaris
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APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
TILE REFERENCE: IM-2-C1
CURRENT EPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 81
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Best Local Similarity 100.
Matches 115; Conservative
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Patent No. 6482403
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Query Match
Best Local Similarity
                                                                                                                                                                                                                       APPLICANT: Sin, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: Monderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
EARLIER FILING DATE: 1998-05-29
                                                                                                               LENGTH: 13
TYPE: PRT
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100.0%;
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Score 610; DB 4;
Pred. No. 6.8e-71;
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                  Length 134;
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FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 199-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 134
TYPE: PRT
GRGANISM: Canis familiaris
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Query Match
Best Local Similarity
Marches 70; Conserve
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US-09-371-615A-2
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GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
                                                                                                                                                                                                                                                           SEQ ID NO 1
LENGTH: 115
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence 2, Application US/09371615A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/09556818 Patent No. 6746669
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                                                                                                     NAME/KEY: DISULFID LOCATION: (86)
OTHER INFORMATION: 1
OTHER INFORMATION: 1
                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/556,818
CURRENT FILLNG DATE: 2000-04-21
NUMBER OF SEQ ID NOS: 65
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Klysner, Steen
TITLE OF INVENTION: Method For Down-Regulating IL5 Activity
FILE REFERENCE: 0459-0428P
                                                                                                                                                                                                          FEATURE:
NAME/KEY: DISULFID
LOCATION: (44)
                                                                                                                                                                         OTHER INFORMATION: Interchain disulphide bond to OTHER INFORMATION: NO:1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           114;
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                58.4%; ilarity 62.5%; Conservative 1
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ilarity 99.1%;
Conservative
                                                                                                     Interchain disulphide bond to NO:1
                ; Score 356; DB 4;
; Pred. No. 4e-38;
16; Mismatches 26
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US-08-759-628-9
                 RESULT 8
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                Query Match
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/284,393B
FILING DATE: 01-AUG-1994
CLASSIFICATION: 435
CTASSIFICATION 435
ATTORNEY/AGENT INFORMATION:
NAME: Ching, Edwin P.
REGISTRATION UMBER: 34,090
REFERENCE/DOCKET NUMBER: DX0389
TELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
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APPLICANT: Zurawski
TITLE OF INVENTION:
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                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
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                                                                       83 TVERLEKNISLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIBS
                                                                                            64 AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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901 California Avenue
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linear
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Zurawski, Gerard
VENTION: MUTEINS OF MAMMALIAN CYTOKINES
                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                          58.4%; Score 356; DB 1; Length 134; 62.5%; Pred. No. 5e-38;
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Sequence 9, Application US/08759628 Patent No. 6225446 GENERAL INFORMATION:

APPLICANT: APPLICANT: APPLICANT:

APPLICANT:

Altmann, Scott W. Rock, Fernando L. Bazan, J. Fernando Kastelein, Robert A.

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RESULT 9
US-09-371-615A-7
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                                                                       TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANIME INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/99/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 7
LENGTH: 134
                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/09371615A Patent No. 6537781
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APPLICANT: IDEXX LABORATORIES
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Best Local Similarity
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/759,628
FILING DATE: 05-DEC-1996
CLASSIFICATION 05-DEC-1996
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 60/008,574
FILING DATE: 06-DEC-1995
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OTHER INFORMATION: Interleukin
                    FEATURE:
                                     ORGANISM: Homo sapiens
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LENGTH: 134 amino aci
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Ching, Edwin P. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
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Palo Alto
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, Edwin P.
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DXC
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 13, Application PC/TUS9508950 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local Similarity
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APPLICANT: Bolder Blotechnology, Inc.
APPLICANT: Bolder Blotechnology, Inc.
TITLE OF INVENTION: Derivacives of Growth Hormone and Related Proteins
FILE REFERENCE: 4152-1-PUS
CURRENT FAPPLICATION NUMBER: US/09/462,941
CURRENT FILING DATE: 2000-01-14
PRIOR APPLICATION NUMBER: 60/052,516
PRIOR PILING DATE: 1997-07-14
PRIOR FILING DATE: 1997-07-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo
                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
CORPUSADE: COMPANDE
                                                                                                                                                                                                                                                                                                                      APPLICANT: Zurawski, Sandra M.
APPLICANT: Zurawski, Gerard
TITLE OF INVENTION: MUTEINS OF MAMMALIAN CYTOKINES
                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                   SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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FILING DATE:
                   APPLICATION NUMBER:
                                                                                                                                                                                                                       CITY: Palo Alto
                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                               ADDRESSEE:
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                                                                                                                                                              94304-1104
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                   PCT/US95/08950
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PRIOR APPLICATION DATA:

APPLICATION NUMBER:

US 08/284,393

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RESULT 12
5324640-2
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5324640-2
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5324640-2
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APPLICANT: HONJO, Tasuku;Takatsu, Kiyoshi;Severinson, Ev
TITLE OF INVENTION: HUMAN B-CELL DIFFERENTIATION FACTOR
; PROCESS OF PRODUCING SAID FACTOR
; PROCESS OF PRODUCING SAID FACTOR
                                                                                    PROCESS OF PRODUCING SAID FACTOR NUMBER OF SEQUENCES: 2
CURRENT APPLICATION DATA:
                                                                                                                                        ;Patent No. 5324640
; APPLICANT: Honjo, Tasuku;Takatsu,
; TITLE OF INVENTION: HUMAN B-CELL:
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                                 SEQ ID NO:2:
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Best Local S
Matches 70
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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REFERENCE/DOCKET NUMBER: DX
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 01-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: Ching, Edwin P.
REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
                                                  APPLICATION NUMBER: US/07/99,467 FILING DATE: 21-SEP-1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 21-SEP-1987
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                  LENGTH: 134
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Similarity 62.5%;
70; Conservative 1
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Pred. No. 5e-38;
.6; Mismatches
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                                                                                                                                          , Kiyoshi, Severinson, Eva
DIFFERENTIATION FACTOR AND
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                                                                                                                                                                                                                                                                                                                                                                                                                   26; Indels
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TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 8
LENGTH: 133
TYPE: PAT
ORGANISM: Mus musculus
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                                                   ; OTHER INFORMATION: Interleukin US-09-371-615A-8
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SOFTWARE: Pac
SEQ ID NO 2
FRIGTH: 121
                                                                                                                                                                                                                                                                                                 Sequence 8, Application US/09371615A Patent No. 6537781
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
Query Match
Best Local Similarity
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Patent No. 6465616
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CURRENT APPLICATION NUMBER: US/09/180,864
CURRENT FILING DATE: 1999-04-12
PRIOR APPLICATION NUMBER: 08/591,438
PRIOR FILING DATE: 1994-07-28
NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bastiras, Dec.,
APPLICANT: Hey, Allan W
TITLE OF INVENTION: AN INTERLEUKIN-5 ANTAGONIST
TOPPERENCE: 9972Z
TOPPERENCE: 9972Z
TOPPERENCE: 9972Z
TOPPERENCE: 9972Z
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APPLICANT: Vadas, Matthew
APPLICANT: Shannon, France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 121
TYPE: PRT
ORGANISM: modified IL-5
                                                                                  FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shannon, Frances
Bastiras, Stan
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 56.9%;
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Pred. No. 5e-38;
 Score 347; DB 4;
Pred. No. 7.3e-37;
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Result
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Maximum Match 100%
Listing first 100 summaries
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Maximum DB
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Perfect score:
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

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11: /cgn2_6/ptodata/1/pubpaa/US09E_PUBCOMB.pep:*

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14: /cgn2_6/ptodata/1/pubpaa/US10E_PUBCOMB.pep:*

15: /cgn2_6/ptodata/1/pubpaa/US10E_PUBCOMB.pep:*

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22: /cgn2_6/ptodata/1/pubpaa/US10E_PUBCOMB.pep:*
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9 US-09-755-633-10
14 US-10-218-54-86
14 US-10-262-439-86
15 US-10-787-382-10
16 US-10-218-654-81
17 US-10-262-439-81
18 US-10-658-834A-569
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 Sequence 10, Appl
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Sequence 10, Appl
Sequence 5, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 5, Appl
Sequence 588, App
Sequence 589, App
Sequence 13, Appl
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     US-10-846-911-13
US-10-050-899-234
US-10-050-899-234
US-10-658-834A-574
US-10-658-834A-579
US-10-658-834A-589
US-10-658-834A-589
US-10-658-834A-599
US-10-658-834A-599
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US-10-658-834A-598
US-10-658-834A-598
US-10-658-834A-598
US-10-658-834A-599
  Sequence 13, Appl Sequence 234, App Sequence 234, App Sequence 234, App Sequence 234, App Sequence 208, App Sequence 589, App Sequence 589, App Sequence 589, App Sequence 1, Appli Sequence 133, App Sequence 133, App Sequence 12, Appli Sequence 13, Appli Sequence 11, Appli Sequence 596, App Sequence 576, App Sequence 577, App Sequence 578, App Sequence 578, App Sequence 578, App Sequence 578, App Sequence 579, App Sequence 579, App Sequence 579, App Sequence 579, App Sequence 571, App Sequence 571, App Sequence 572, App Sequence 573, App Sequence 574, App Sequence 574, App Sequence 575, App Sequence 577, App Sequence 577, App Sequence 578, App Sequence 579, App Sequence 579, App Sequence 571, App Sequence 571, App Sequence 572, App Sequence 573, App Sequence 574, App Sequence 574, App Sequence 574, App Sequence 575, App Sequence 576, App Sequence 577, App Sequence
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Sequence 10, Application US/09755633

Patent No. US20020127200A1

GENERAL INFORMATION:
APPLICANT: Vang, Shumin
APPLICANT: Webcall, Catherine A.

APPLICANT: Weber, Bric R.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633

CURRENT APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28

PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 21

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 10
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US-10-218-654-86
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TYPE: PRT
; ORGANISM: Canis familiaris
US-09-755-633-10
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US-09-755-633-10
                                                                                                                                  Sequence 86, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
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Best Local Similarity
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND PELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REPERENCE: IM-2-CI MOLECULES, AND USES THEREOF CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT PILING DATE: 2002-08-13
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PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 86
LENGTH: 115
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PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOPTWARAE: Patentin Ver. 2.0
SEQ ID NO 86
SEQ ID NO 86
TYPE: PRT
ORGANISM: Canis familiaris
; Sequence 10, Application US/10787382
Publication No. US20040191868A1
; GENERAL INFORMATION:
; APPLICANT: Yang, Shumin
; APPLICANT: McCall, Catherine A.
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US-10-787-382-10
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US-10-262-439-86
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US-10-262-439-86
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Publication No. US20030143196A1
GENERAL INFORMATION;
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
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Best Local Similarity
Matches 115; Conserv
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Best Local
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APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
CURRENT FILING DATE: 2002-09-30
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Pred. No. 1.2e-63;
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Pred. No. 1.2e-63;
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TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE; IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR FILING DATE: 1099-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver: 2.1
SEQ ID NO 10
LENGTH: 115
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US-09-755-633-5
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APPLICANT: Yang, Shumin
APPLICANT: WCCall, Catherine A.
APPLICANT: Weber, Eric R.
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Best Local Similarity
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PatentIn Ver. 2.1
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HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 134
                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 610; DB 9; 100.0%; Pred. No. 1.4e-63;
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                                                                                                                                                                                                                                                                                                                                                                                                                     Length 134;
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RESULT 6 US-10-218-654-81

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CURRENT APPLICATION NUMBER: US/10/218,654
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US/09/322,409
; PRIOR FILING DATE: 1999-05-28
; PRIOR APPLICATION NUMBER: 60/087,306
; PRIOR FILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 154
; SOFTWARE: PATENTIN Ver. 2.0
; SEQ ID NO 81
                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 81
LENGTH: 134
TYPE: PRT
ORGANISM: Canis familiaris
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; TYPE: PRT
; ORGANISM: Canis familiaris
US-10-218-654-81
                                                                                                                                                                                US-10-262-439-81
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                                                                                        Matches 115;
                                                                                                                                   Query Match
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Ureitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: WONDERING AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REPERENCE: IM-2-C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OP INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OP INVENTION: ACID MOLECULES, AND USES THEREOP FILE REPERENCE: IM-2-C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Sim, Gek-Kee APPLICANT: Yang, Shumii
                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 HGEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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                       1 FAVENPMNRLVAETLITLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTA
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                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 610; DB 14; 100.0%; Pred. No. 1.4e-63;
                                                                                                           100.0%;
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                                                                                      Score 610; DB 14;
Pred. No. 1.4e-63;
; Mismatches 0;
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/ ORGANISM: Canis familiaris
US-10-787-382-5
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                                                  US-10-658-834A-588
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SEQ ID NO 5
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                                                                                                                   SEQ ID NO 588
LENGTH: 115
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/9/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR FILING DATE: 2001-01-05
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 60/087,306
                                                                                                                                                                                                                                      PILE REFERENCE: 38751-922
CURRENT APPLICATION NUMBER: US/10/658,834A
CURRENT FILING DATE: 2003-09-08
PRIOR APPLICATION NUMBER: 60/457,135
PRIOR FILING DATE: 2003-03-21
PRIOR APPLICATION NUMBER: 60/409,898
                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Vegs, Manuel
TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding
TITLE OF INVENTION: Acid
TITLE OF INVENTION: Molecules and Related Applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Gantier, Rene
APPLICANT: Guyon, Thierry
APPLICANT: Drittanti, Lila
                                                                                                                                                                PRIOR FILING DATE: 2002-09-09
NUMBER OF SEQ ID NOS: 1306
SOFTWARE: FastSEQ for Windows
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NUMBER OF SEQ ID NOS: 21
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                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 134
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                                                                                                                                                                        for Windows Version
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  58.7%;
  Score 358;
  명
  16;
Length 115;
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RESULT 11
US-10-295-074-13
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US-10-658-834A-569
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                                                                                                   APPLICANT: Pharmexa A/S
TITLE OF INVENTION: NOVEL IMMUNOGENIC MIMETICS OF MULTIMER PROTEINS
FILE REFERENCE: P1013DK00
CURRENT APPLICATION NUMBER: US/10/295,074
CURRENT FILING DATE: 2002-11-15
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin version 3.1
SEQ ID NO 13
LENGTH: 287
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                 Sequence 13, Application US/10295074
Publication No. US20030185845A1
GENERAL INFORMATION:
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SEQ ID NO 569
LENGTH: 115
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Guyon, Thierry
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
TITLE OF INVENTION: Rational Evolution of Cytokines for Higher Stability, Encoding |
TITLE OF INVENTION: Acid
TITLE OF INVENTION: Molecules and Related Applications
FILE REFERENCE: 38751-922
CURRENT APPLICATION NUMBER: US/10/658,834A
CURRENT FILING DATE: 2003-03-21
PRIOR APPLICATION NUMBER: 60/409,898
PRIOR APPLICATION NUMBER: 60/409,898
PRIOR PILING DATE: 2003-03-09
PRIOR PILING DATE: 2003-09-09
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Matches 70; Conservative
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ORGANISM: Artificial sequence FEATURE: OTHER INFORMATION: Two human IL5 monomers joined by diglycine linker and including OTHER INFORMATION: erminally positioned P30 and P2 epitopes
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US-10-295-074-13

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CURRENT APPLICATION NUMBER: US/10/846,911
CURRENT FILING DATE: 2004-05-14
PRIOR APPLICATION NUMBER: PCT/DK02/00764
PRIOR PILING DATE: 2002-11-15
PRIOR PLICATION NUMBER: 60/331,575
PRIOR RPLICATION NUMBER: 60/331,575
PRIOR APPLICATION NUMBER: PA 2001 01702
PRIOR APPLICATION NUMBER: PA 2001 01702
PRIOR FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 60
SOFTWARE: PACENTIN VETSION 3.1
SEQ ID NO 13
                                                                                                                                                                                     ; Sequence 234, Application US/1; Publication No. US20030157479A; GENERAL INFORMATION:
APPLICANT: Bachmann, Martin APPLICANT: Jennings, Gary; APPLICANT: Sonderegger, Ivo
                                                                                                                                                                                                                                                                                                                            US-10-289-454-234
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Two human IL5 monomers joined by diglycine linker and including OTHER INFORMATION: terminally positioned P30 and P2 epitopes -10-846-911-13
APPLICANT: Sonderegger, Tvo
TITLE OF INVENTION: Antigen Arrays for Treatments of Allergic Eosinophilic Diseases
FILE REFERENCE: 1700.036001
CURRENT APPLICATION NUMBER: US/10/289,454
CURRENT FILING DATE: 2003-02-10
PRIOR APPLICATION NUMBER: US 60/396,636
PRIOR PILING DATE: 2002-07-19
PRIOR PILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: PCT/IB02/00166
PRIOR FILING DATE: 2002-01-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: KLYSNER, Steen
APPLICANT: NIELSEN, Finn Stausholm
APPLICANT: BRATT, Tomas
APPLICANT: VOLDBORG, Bjorn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: NOVEL IMMUNOGENIC MIMETICS OF MULTIMER PROTEINS FILE REFERENCE: 674542-2018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: MOURITSEN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial sequence FEATURE:
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                                                                                                                                                                                                                                                                                Application US/10289454
o. US20030157479A1
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PRIOR APPLICATION NUMBER: US 10/050,902
PRIOR FILING DATE: 2002-01-18
PRIOR APPLICATION NUMBER: US 60/331,045
PRIOR FILING DATE: 2001-11-07
NUMBER OF SEQ ID NOS: 386
SOFTWARE: PATENTIN Version 3.2
SEQ ID NO 234
LENGTH: 115
RESULT 15
US-10-050-898-234
; Sequence 234, Application US/10050898
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US-10-050-902-234
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SOPTWARE: PatentIn Ver. 2.
SEQ ID NO 234
LENGTH: 115
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Publication No. US20030175290A1
                                                                                                                                                                                                                                                                                         Best Local Similarity Matches 70; Conserv
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                   Query Match
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CURRENT APPLICATION NUMBER: US/10/050,902
CURRENT FILING DATE: 2002-01-18
PRIOR APPLICATION NUMBER: US 60/262,379
PRIOR FILING DATE: 2001-01-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/288,549
PRIOR PILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/326,998
PRIOR FILING DATE: 2001-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/331,045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Lechner, Franziska
APPLICANT: Sebbel, Peter
APPLICANT: Piossek, Christine
TITLE OF INVENTION: Molecular Antigen Array
FILB REFERENCE: 1700.0190004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Renner, Wolfgang A.
                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
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Tissot, Alain
Maurer, Patrick
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                                                                                                                                                                                                                                                                                       58.4%; Score 356; DB 14; Length 115; 62.5%; Pred. No. 1e-33; ative 16; Mismatches 26; Indels
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Publication No. US20030175711A1

REPERZALI INFORMATION:
REPERZANT: Renner, Wolfgang A.
REPLICANT: Hackmann, Martin
REPLICANT: Backmann, Martin
REPLICANT: Hackmann, Martin
REPLICANT: Hackmann, Martin
REPLICANT: Hackmann, Martin
REPLICANT: Standmann, Martin
REPLICANT: Standmann, Martin
REPLICANT: Standmann, Martin
REPLICANT: Standmann, Rainer
REPLICANT: Ortmann, Rainer
REPLICANT: Ortmann, Rainer
REPLICANT: Standmann, Matthias
REPLICANT: Standmann, Matthias
REPLICANT: Standmann, Matthias
REPLICANT: Standmann, Matthias
REPLICANT: Standmann, Rainer
REPLICATION UNBER: US 60/326, 998
RICK RASIN: Standmann, Rainer
REPLICANT: Standmann, Rainer
REPLICATION UNBER: US 60/262, 379
RENDER ROINER
REPLICATION UNBER: US 60/262, 379
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REPLICATION UNBER: US 60/262, 379
RENDER ROINER
REPLICATION UNBER: US 60/262, 379
RENDER
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Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters:

283416

Minimum Maximum 80 80 seq length: 0 seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 100 summaries

Database : PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

Query

556 556 556 556 556 662 663 664 665 665 666 667 667 667 667 667 667 667	
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0.0.2.2.2.2.2.3.3.3.3.3.4.4.4.5.5.5.5.5.5.5.5.5.5.5.5	00000000000
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JX0336 JX0336 S51380 S51380 S51380 S51380 JX00831 JX00831 JX0095 JX02750 D89966 A97953 S773585 JS95085 JC95086 A97953 S773585 JS95086 A99795 A11581 H90192 F8893130 A11581 H81313 A11581 A11686 A221 A46636 A2326 A2326 A2326 A2326 A3326 A346636 A346636 A36686 A366	60000000000000000000000000000000000000

hypothetical prote conserved hypothet glutamate synthase hypothetical prote protein W09G12.1 [
hypothetical prote anthranilate phosp hypothetical prote regulator of patho hypothetical prote ferric enterobacti hypothetical prote spectrin alpha cha prolipoprotein dia virion tegument probable regulator alpha-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin-toxin glucosamine-6-phosintegrase homolog hypothetical protein-glycine-tRNA ligas hypothetical protein-glycine-tRNA ligas hypothetical protein kinase STE probable acyl-CoA carboxy truncated transposmultidrug efflux p MG068 homolog D02 transcription regulation regulation protein transloconserved hypothetical proteconserved hypothetical proteco hypothetical prote SH2-containing ino AcMNPV orf34 - Bom myosin heavy chain DNA polymerase bet acetyl-CoA carboxy hypothetical prote hypothetical prote SCF complex protei DNA-directed RNA phypothetical protei acetyl-CoA carboxy acetyl-CoA carboxy acetyl-CoA carboxy hypothetical prote probable membrane ACOrf-34 protein - hypothetical prote phytoene dehydroge complement factor hypothetical prote ATP-dependent DNA DNA polymerase bet probable ATP/GTP-b cdc10 start contro DNA-directed RNA p

ALIGNMENTS

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Gemmel]

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Gene 176, 273-274, 1996
A;Title: The nucleotide sequence of the bovine interleukin-5-encoding cDNA.
A;Reference number: JCS116; MUID:97075944; PMID:8918267
A;Accession: JCS116
A;Accession: JCS116
A;Molecule type: mRNA
A;Residues: 1-134 <MERA
A;Residues: 1-134 <MERA
A;Cross-references: UNIPROT:P52173; EMBL:Z67872; NID:g1113120; PIDN:CAA91779.1; PID:g111
A;Experimental source: lymphocytes
C;Comment: This protein plays a role in the eosinophilia associated with parasitic dises
C;Genetics:
A;Genetics:
A;Gene: IL-5
C;Genetics: Jiterleukin-5
C;Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine; T-cell
F;1-19/Domain: signal sequence #status predicted <MAT>
F;20-134/Product: interleukin-5 #status predicted <MAT>
F;20-134/Product: interl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         interleukin-5 precursor - human
NyAlternate names: B-cell growth factor II; cytotoxic T lymphocyte inducer; eosinophil
C;Species: Homo sapiens (man)
C;Date: 01-Dec-1989 #sequence revision 07-Jul-1995 #text change 09-Jul-2004
C;Accession: A28477; A33883; Ā26112; A39881; JX0106; S15775
R;Tanabe, T.; Konishi, M.; Mizuta, T.; Noma, T.; Honjo, T.
J. Biol. Chem. 262, 16580-16584, 1987
A;Title: Molecular cloning and structure of the human interleukin-5 gene.
A;Reference number: A28477; MUID:88059042; PMID:2824500
                                                                                                                                       A;Cross-references: GB:J02971; NID:g186340; PIDN:AAA98620.1; PID:g386823
R;Azuma, C.; Tanabe, T.; Konishi, M.; Kinashi, T.; Noma, T.; Matsuda, F.; Yaoita, Y.; Ta Nucleic Acids Res. 14, 9149-9158, 1986
A;Title: Cloning of cDNA for human T-cell replacing factor (interleukin-5) and compariso A;Reference number: A26112; MUID:87066782; PMID:3024129
A;Accession: A26112
                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:P05113; GB:J03478; NID:g186338; PIDN:AAA74469.1; PID:g386822 R;Campbell, H.D.; Tucker, W.Q.J.; Hort, Y.; Martinson, M.B.; Mayo, G.; Clutterbuck, B.J. Proc. Natl. Acad. Sci. U.S.A. 84, 6629-6633, 1987
A;Title: Molecular cloning, nucleotide sequence, and expression of the gene encoding hum A;Reference number: A33883; MUID:88016145; PMID:3498940
A;Accession: A33883
A;Molecule type: DNA
A;Residues: 1-134 <CAM>
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C;Date: 02-Feb-1997 #sequence_revision 27-Feb-1997
C;Accession: JC5116
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A; Residues: 1-134 < TAN>
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P;63/Disulfide bonds: interchain (to 105) #status predicted
P;76,90/Bhnding site: carbohydrate (Asn) (covalent) #status
P;105/Disulfide bonds: interchain (to 63) #status predicted
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Best Local Similarity
Matches 93; Conserv
                                                  Molecule type: mRNA
Residues: 1-134 <AZU>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 AVENPMURLVARTLILLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GDAVKKIFQNLSLIKEYIDLQKRKCGGERWRVKQFLDYLQVFLGVINTEWTMES 134
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          GB:X04688;
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     NID: 933835;
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; Pred. No. 8e-42;
12; Mismatches
     PIDN: CAA28390.1;
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PID:g33836
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interleukin-5 precursor - mouse
N,Alternate names: B-cell growth factor II; cytotoxic T lymphocyte inducer; eosinophil
C,Species: Mus musculus (house mouse)
C,Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 09-Jul-2004
C,Accession: S00807; A38758; A24898; JS0077; PH0102; B39881
C,Accession: S00807; A38758; A24898; JS0077; PH0102; B39881
R;Campbell, H.D.; Sanderson, C.J.; Wang, Y.; Hort, Y.; Martinson, M.E.; Tucker, W.Q.J.;
R;Campbell, H.D.; Sanderson, C.J.; Wang, Y.; Hort, Y.; Martinson, M.E.; Tucker, W.Q.J.;
Bur. J. Biochem. 174, 346-352, 1988
Bur. J. Biochem. 174, 346-352, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Map position: 5q31.1-5q31.1
A;Introns: 48/3; 59/3; 102/3
C;Superfamily: interleukin-5
C;Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine;
C;Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine;
F;1-19/Domain: signal sequence #status predicted <SIO>
F;20-134/product: interleukin-5 #status predicted <AMAT>
F;22/Binding site: carbohydrate (Thr) (covalent) #status experimental
F;47,90/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;63/Disulfide bonds: interchain (to 103) #status experimental
F;105/Disulfide bonds: interchain (to 63) #status experimental
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Proudfoot, A.B.I.; Davies, J.G.; Turcatti, G.; Wingfield, P.T.
FEBS Lett. 283, 61-64, 1991
A;Title: Human interleukin-5 expressed in Escherichia coli: assignment of the disulfide A;Reference number: S15775; MUID:91243878; PMID:2037074
A;Contents: annotation; disulfide bonds
A;Contents: annotation; disulfide bonds
R;Minemitake, Y.; Kodama, S.; Katayama, T.; Adachi, H.; Tanaka, S.; Tsujimoto, M.
J. Biochem. 107, 292-297, 1990
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A;Cross-references: GDB:120097; OMIM:147850
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Best Local S
Matches 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1; Length 134;
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A;Reference number: \$00807; MUID:88254802; PMID:3133208
A;Accession: \$00807
A;Molecule type: DNA
A;Residues: 1-133 <CAN>
A;Cross-references: UNIPROT:P04401; EMBL:X06271; NID:g52685; PIDN:CAA29607.1; PID:g52686
A;Accession: A38758

Y.; Martinson, M.E.; Tucker, W.Q.J.; &

for murine eosino

A;Title: Cioning of complementary DNA encoding T-cell replacing factor and A;Reference number: A24898; MUID:87065032; PMID:3024009
A;Accession: A24898
A;Molecule type: mRNA
A;Molecule type: mRNA

A;Residues: 1-133 <CAM2>
A;Residues: 1-133 <CAM2>
A;Cross-references: EMBL:X06270; NID:g52687; PIDN:CAA29606.1; PID:g52688
R;Kinashi, T.; Harada, N.; Severinson, E.; Tanabe, T.; Sideras, P.; Konii
Nature 324, 70-73, 1986

Konishi,

M., Azuma, (

A; Molecule type: mRNA

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A;Introns: 47/3; 58/3; 101/3
G;Superfamily: interleukin-5
C;Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine; T-cell
F;L-18/Domain: signal sequence #status predicted <SIG>
F;L-18/Domain: signal sequence #status predicted <MAT>
F;19-133/Product: interleukin-5 #status predicted *CMAT>
F;46/Binding site: carbohydrate (Asn) (covalent) #status experimental
F;62/Disulfide bonds: interchain (to 104) #status predicted
F;75,89/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;104/Disulfide bonds: interchain (to 62) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
A48418
                          C; Keywords: cytokine; glycoprotein; growth factor; homodimer; lymphokine; T-cell F;1-17/Domain: signal sequence #status predicted <5/5/5 F;18-132/Product: interleukin-5 #status predicted <MAT>
F;45,74,88/Binding site: carbohydrate (Asn) (covalent) #status predicted F;45,74,88/Binding site: carbohydrate (Asn) (sovalent) #status predicted F;61/Disulfide bonds: interchain (to 103) #status predicted
                                                                                                                                                                                                                                                    A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-132 <UBE>
A;Cross-references: UNIFROT:Q08125; EMBL:X54419; NID:g313254; PIDN:CAA38283.1; PID:g3132
A;Experimental source: cell line TR5-1
                                                                                                                                                                                                                                                                                                                                                                                                                            Cytokine 3, 72-81, 1991
A;Title: The rat interleukin-5 gene: characterization and expression by retroviral
A:Reference number: A48418; MUID:91355638; PMID:1653053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Ratius norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A484418, S37641
C;Accession: A484418, S37641
R;Uberla, K.; Li, W.Q.; Qin, Z.H.; Richter, G.; Raabe, T.; Diamantstein, T.
Cytokine 3, 72-81, 1991
Cytokine 3, 72-81, 1991
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A;Title: Isolation and characterization of lymphokine cDNA clones A;Reference number: A39881; MUID:88041112; PMID:2823259
A;Accession: B39881
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                                                                                                                                                                                         A;Note: sequence extracted from NCBI backbone (NCBIN:63651, NCBIP:63652) C;Superfamily: interleukin-5
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A; Residues: 21-45, 'X', 47 < TAK>
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A;Cross references: UNIPROT:P23478; GB:M63489; NID:g142438; PIDN:AAA22201.1; PID:g142440 R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bertert C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; CCD: A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallert iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F., Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Liuk, R.; Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel, Y., M.; Ogawa, K.; Ogiwara, A.; Odega, B.; Park, S.H.; Parro, V.; Bohl, T.M.; Portetelle, Y. M.; Ogawa, K.; Ogiwara, A.; Odega, B.; Park, S.H.; Parro, V.; Sato, T.; Scanlon, Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon,
                                                                                                                                                                                                                                                                                                                                                                                                                   J. Bacteriol. 173, 3644-3655, 1991
A;Title: Cloning, sequencing, and expression of Bacillus subtilis genes involved
A;Reference number: A39432; MUID:91267926; PMID:1646786
A;Accession: B39432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATP-dependent deoxyribonuclease chain A addA - Bacillus subtilis N;Alternate names: ATP-dependent exonuclease synthesis protein AddA c;Species: Bacillus subtilis C;Date: 21-Feb-1992 #sequence_revision 21-Feb-1992 #text_change 09-0;Accession: B39432; H69582 R;Kooistra, J.; Venema, G.
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A;Molecule type: DNA
A;Residues: 1-1232 <KOO>
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C;Superfamily: Arabidopsis thaliana hypothetical protein F24I3.60
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A; Accession: T47758
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Protein Sequence Database, February 2000
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Pred. No. 5.7e-26;
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C;Accession: T47757

R;Nyakatura, G.; Fartmann, B.; Daune submitted to the Protein Sequence Da A;Reference number: Z24475

A;Accession: T47757

A;Accession: T47757

A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-253 <NYA>
A;Cross-references: UNIPROT:Q9M1K1;
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A;Accession: H69582
A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Molecule type: DNA A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-1232 <KUN>
A;Experimental source: strain 168
C;Genetics:
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C;Keywords: nucleotide binding; P-loop
F;30-37/Region: nucleotide-binding motif A (P-loop)
RNA polymerase (beta' subunit) rpoC - Bacillus subtilis
C;Species: Bacillus subtilis
C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: G69698
R;Kunst, F; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Ber R;Kunst, F; Ogasawara, N.; Moszer, I.; Albertini, B.; Capuano, V.; Carter, N.M.;
C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.;
A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Introns: 104/3
A;Note: F24I3.50
C;Superfamily: Arabidopsis thaliana hypothetical protein F24I3.60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:Q9M1K1; EMBL:AL138655
A;Experimental source: cultivar Columbia; BAC clos
C;Genetics:
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C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004
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Best Local S
Matches 23
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Best Local S
Matches 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              680 AGDRSDELYQKLNTFYGHLQKWRAFSKNHSVSELIWEVYRDTKYMDYV
                                                                                                                                                                                                                                                                                                                                                                                                                                       62 GEAVDKLFONLSLIKEHIEROKKKRC 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 HGEAVDKLFQNLSLIKEHIERQK-----KRCAGERWRVTKFLDYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 RLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGID-----TLKNQTAH 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 VENPMNRLVAETLITLLSTHRTWLIG--DGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      n 12.0%; Score 73.5; DB 2; Similarity 27.1%; Pred. No. 7.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
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                                                                                                                                                                                                                                                                                                                                                                          GE---RLFYTLHLQVENMDDYKINC 234
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22.2%; Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dauner, D.; Sterr, W.; Holland, R.; Weichselgartner, nce Database, February 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pred. No. 7.5;
15; Mismatches
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M.; Chd
ri, E.
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   RESULT:10
S33813
kinesin light chain - sea urchin (Strongylocentrotus purpuratus)
kinesin light chain - sea urchin (Strongylocentrotus purpuratus)
C;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Dates ion: S33813
C;Medaman, K.P.; Knight, A.E.; Kendrick-Jones, J.; Scholey, J.M.
J. Mol. Biol. 231, 155-158, 1993
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A;Authors: Foulger, D.; Fritz, C.; Pujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallerc iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.; Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A; Authors: Lauber, J.; Lazarevic, V.; Lee, S. M.; Levine, A.; Liu, H.; Masuda, S.; Maueel, Y.; M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle, Rieger, M.; Rieger, M.; Schroeter, R.; Scoffone, B.; Rose, M.; Sadate, Y.; Sato, T.; Scanlon, A; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K. A; Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A. A; Reference number: A69580; MUID: 98044033; PMID: 9384377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kinesin light chain isoform 4 - sea urchin (Strongylocentrotus purpuratus) ("Specias: Strongylocentrotus purpuratus (purple urchin) ("Date: 08-Dec-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004 ("Accession: S33816 R; Wedaman, K.P.; Knight, A.B.; Kendrick-Jones, J.; Scholey, J.M.
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A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-451 <WED>
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A; Title: Sequences of sea urchin kinesin light chain isoforms
A; Reference number: $33813; MUID:93267648; PMID:8496962
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Experimental source: strain 168 C;Genetics:
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A;Residues: 1-1199 <KUN>
A;Cross-references: UNIPROT:p37871; GB:Z99104; GB:AL009126; NID:g2632267; PIDN:CAB11884.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; nucleic acid sequence not shown; translation not shown
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                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: UNIPROT:Q05090; EMBL:L08258; NID:g161531; PID:g161532
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35 TPENKNHOLCIKEVFQGIDTLKN--QTAHG-EAVDKLFQNLSLIKE--HIERQKKRCAGE 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90 -RWRVTKFLDYLQVF 103
                                                        85 RCAGERWRVTKFLDYLQVFLG 105
                                                                                                                                                                               27 GDGNLMIPTPENKNHQLC--IKEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKK
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                                                                                                                                                                                                                                                                       Similarity
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LVBEKTDIIEKSLESLELGLG
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                                                                                                                    ---SQBQIITGTREVIKGLEQLKNE--HNDILNSLYQSLKMLKKDTPGDSN 65
                                                                                                                                                                                                                                  11.9%; Score 72.5; D
25.9%; Pred. No. 18;
%tive 19; Mismatches
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86
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                                                                                                                                                                                                                                                                                                    Length 451;
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R;Weddman, K.P.; Knight, A.B.; Kendrick-Jones, J.; Scholey, J.M.
J. Mol. Biol. 231, 155-158, 1993
A;Title: Sequences of sea urchin kinesin light chain isoforms.
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33815
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-686 <WED>
A;Cross-references: UNIPROT:Q05090; EMBL:L10235
A;Cross-references: UNIPROT:Q05090; EMBL:L10235
R;Weddman, K.P.; Knight, A.E.; Kendrick-Jones, J.; Scholey, J.M.
submitted to the EMBL Data Library, February 1993
A;Reference number: S36727
A;Accession: S36727
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A;Title: Sequences of sea urchin kinesin light chain isoforms.
A;Reference number: S33813; MUID:93267648; PMID:8496962
A;Accession: S33814
                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Strongylocentrotus purpuratus (purple urchin)
C;Date: 08-Dec-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S33815; S36727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
S33815
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A;Accession: S33813
A;Status: preliminary
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-568',A',570-686 <WE2>
A;Cross-references: EMBL:L10235; NID:g161529; PID:g161530
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A; Residues: 1-649 <WED>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:Q05090; EMBL:L10234; NID:g161527; PID:g161528
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Residues: 1-677 <WED>
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25.9%;
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25.9%; Pred. No. 3(
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Pred. No. 28;
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A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S.N. Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archaeor A;Reference number: A69250; MUID:98049343; PMID:9389475
A;Accession: B69498
                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein AF1987 - Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Species: Archaeoglobus fulgidus
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: B64986
C;Accession: B64986
R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.B.; Ketchum, K.A.; Dodson,
C;Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F.,
Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.
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Mol. Gen. Genet. 200, 47-59, 1985
A;Title: Structure of genes and an insertion element in A;Reference number: 828653; MUID:85295498; PMID:2993814
A;Accession: S28653
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Nature 390, 3
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C;Genetics:
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A; Residues: 1-401 <H
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C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
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A; Residues: 1-216 < KLE>
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GDSVIEIPTPP--
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25.9%; Pred. No. 30;
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                                                                                   Score 71; DB
Pred. No. 11;
20; Mismatches
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Pred. No. 1
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hypothetical protein At2g20890 [imported] - Arabidopsis thaliana (C)Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004 C;Accession: F84594 R.Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanāken, S.E.; Umayam, L.; Tallon, L. euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J. Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Accession: F84594
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A; Map position: 2
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A;Molecule type: DNA
A;Residues: 1-300 <STO>
                                                                                                                                                                                                                                                                                                                                                           Query Match 11.6%; Score 71; DB 2; Length 300; Best Local Similarity 31.4%; Pred. No. 16; Matches 27; Conservative 15; Mismatches 26; Indels
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| :| |:: |: |: |: |:
172 MA-QRARMSYHLNGLEED-GLVVTE 194
                                                                                                                          269
                                                                                                                                                                                                                                       219 PTVLDK---LCASLNINKKSVDRDLDVYRN-----LLSKLVQAKELLKEYVEREKKK-Q 268
                                                                                                                                                                                                                                                                          34 PTPENKNHQLCI------KEVFQGIDTLKNQTAHGEAVDKLFQNLSLIKEHIERQKKRCA 87
                                                                                                                                                                               88 GERWRVTKFLDYLQVFLGVINTEWTP 113
                                                                                                                      GERAQSQKANETISKCLG--DTLYNP 292
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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seq length: 2000000000
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2: uniprot_trembl:*
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Q02659 equus cabal
P52173 bos taurus
Q8586 ovis aries
Q8mkh1 saimiri sci
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Q9esi9 sigmodon hi
P48093 macaca mula
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QSMIKI
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Q7XEAI
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YJ87_ARCFU
YJ87_ARCFU
Q9SKT0
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Q831U2
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Q8pca2 Q6fmt0

chrysanthem uncultured arabidopsis helicobacte

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Q7mv24 Q8rvr0 Q7xra1 Q921p5 Q8k2b3 P37871 Q9c1f5 Q8s1n1

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drosophila

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ALIGNMENTS

99d5q3
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97n6a1
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QSSJ76;
QSSJ76;
29-MAR-2004 (Rel. 43, Created)
29-MAR-2004 (Rel. 43, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing factor) (TRF)
(Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NamerIL5;
Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00432; INTERLEUKINS. ProDom; PD006721; Interleukin Cytokine; Glycoprotein; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AF331920; AAL10716.1; -.
EMBL; AF331919; AAL10715.1; -.
HSSP; P05113; 1HUL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity).
SUBUNIT: Homodimer, disulfide-linked (By SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P05113; 1HUL.
Pro; IPR009079; 4_helix_cytokine.
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  (TrEMBLrel.
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                                                                              PRELIMINARY;
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Created)
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Pred. No. 1.5
0; Mismatches
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Interchain (with C-63) (By similarity).
N-linked (GLONAC. . . ) (Potential).
N-linked (GLONAC. . . ) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        By similarity.
Interleukin-5.
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  sequence update)
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l.5e-53;
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Name=IL5;
Felis silvestris catus (Cat).
Felis silvestris catus (Cat).
Kukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Rukaryota; Metazoa; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IL5 FEICA STANDARD; PRT; 134 AA.
O77515; O62740;
15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing (Bosinophil differentiation factor).
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                                                                                                                                                                                                                                                                                                                                                                  Harley R., Day M.J., Gruffydd-Jones T.J., Harbour D.A., Hel
Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
-i-FUNCTION: Factor that induces terminal differentiation
developing B-cells to immunoglobulin secreting cells (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE=98452719; PubMed=9781459;

Padrid P.A., Qin Y., Wells T.N.C., So

"Sequence and structural analysis of

"Sequence sand structural analysis of
Am. J. Vet. Res. 59:1263-1269(1998).
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German A.J., Helps C.R., Has
Submitted (SEP-1998) to the
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ProDom; PD006721; Interleukin_5;
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Mammalia; |
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GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor
GO; GO:0005137; F:immune response; IEA.
GO; GO:0006955; P:immune response; IEA.
InterPro; IPR000186; Interleukin-5.
InterPro; IPR000186; Interleukin-5.
Pfem; PF02025; IL5; 1.
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                                                                                                                                                                                                             SUBUNIT: Homodimer; disulfide-linked (E SUBCELLULAR LOCATION: Secreted. SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                    similarity).
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Similarity 93.7%;
04; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGEAVDKLFQNLSLIKEHIERQKKRCAGKKWKVTNFLNYLQLFLGVMNTEW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        118 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13507 MW;
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                                                                                                                                                                                                                                                           disulfide-linked (By N: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Harley R., Hall E.J.,
the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last annotation update)
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Pred. No. 7.2e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36A5563DD67C968C CRC64;
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of feline interleukin-5 cDNA."
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cDNA.";
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                                                                                                              collaboration
L outstation -
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RESULT 4
Q9TSD7
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Best Local S
Matches 95
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Best Local S
Matches 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9TSD7;
01-MAY-2000
01-MAY-2000
01-MAR-2004
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DISULFID
CARBOHYD
CARBOHYD
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CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Interleukin 5.
Felis silvestris catus (Cat).
Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Eukaryota; Metazoa; Carnivora; Fissipedia; Felidae;
                                                                                                                                       Pfam; PF02025; IL5; 1.
PfINTS; PR00432; INTERLEUKIN5.
ProDom; PD006721; Interleukin 5; 1.
SEQUENCE 134 AA; 15176 MW; 9A118B78F8CAC820 CRC64;
                                                                                                                                                                                                                                                                          GO;
GO;
GO;
GO;
GO;
                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. Vandegriftt B., Hughes Submitted (JUL-1998) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PRO0432; INTERLEUKINS.
ProDom; PD006721; Interleukin 5;
Cytokine; Glycoprotein; Growth f;
SIGNAL 1 19 By;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF025436; AAC64505.1; -.
EMBL; AF051172; AAC05752.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR000199; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9TSD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                           InterPro; IPR009079; 4_helix_cytoki
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                        Aitted (JUL-1776), ARC27616.1; -.

AF068770; AAC27616.1; -.

P; P05113; IHUL.

G0:0005576; C:extracellular; IEA.

G0:0005137; F:interleukin-5 receptor

G0:0006955; P:immune response; IEA.

G0:0006955; P:immune response; IEA.
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                                                                l Similarity
95; Conser
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AVENPMNRLVAETLTLLSTHRTWLIGDGNLMIFTPENKNHQLCIKEVFQGIDTLKNQTAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GEAVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
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63
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76
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104
1108
1117
1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel. 13, Created)
(TrEMBLrel. 13, Last sequence update)
(TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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to the I
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                                                                                   82.8%;
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                                                                                                                                                                                                                                                                                                                                                                           O'Reilly K.L.;
EMBL/GenBank/DDBJ databases.
                                                              Score 505; DB 2; I
Pred. No. 5.8e-43;
0; Mismatches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 510; DB 1;
Pred. No. 1.8e-43
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                                                                                                       Length 134;
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                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi; Felis.
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                                                                Gaps
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RESULT 6
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Best Local S
Matches 97
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01-OCT-2000
01-OCT-2000
                                                                                                           IL5_HORSE
002699;
                                                  15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing (Bosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                               PRINTS; PR00432; INTERLEUKINS.
ProDom; PD006721; Interleukin_5; 1.
SEQUENCE 134 AA; 15191 MW; B485
                                                                                                                                                                                                                                                                                                                                               GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 receptor
GO; GO:0006955; P:immune response; IEA.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PP02025; IL5; 1.
         Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AJ010088; CAB70611.2; -. EMBL; AJ133452; CAB38328.1; -. HSSP; P05113; 1HUL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heegaard P.M.H.;
Submitted (FEB-2000) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE=20130134; PubMed=10663563;
Sylvin H., Matvienko O., leonchiks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9MYM5
                               Equus caballus (Horse).
                                           Name=IL5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=IL-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9823;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Molecular cloning,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Interleukin-5.
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                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                     97;
                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Grondahl-Hansen J., Johansen
                                                                                                                       STANDARD;
          Chordata; Craniata; Vertebrata;
Perissodactyla; Equidae; Equus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            expression,
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Cetartiodactyla; Suina; Suidae;
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85.1%;
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15,
27,
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Last annotation update)
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purification of pig interleukin-
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Sus.
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RESULT
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Best Local S
Matches 95
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DISULFID
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SEQUENCE
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Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells (B similarity).
-!- SUBNUT: Homodimer; disulfide-linked (By similarity).
-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for com
                   MEDLINE=97075944; PubMed=8918267; DOI=10.1016/0378-1119(96)00252-1; Mertens B., Gobright E., Seow H.F.; "The nucleotide sequence of the bovine interleukin-5-encoding cDNA." Gene 176:273-274(1996).

-i- FUNCTION: Pactor that induces terminal differentiation of late-developing B-cells to immunoglobulin secreting cells (By
                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                      Name=IL5;
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                IL5 BOVIN STANDARD; PRT; 134 AA P52173; O1-CCT-1996 (Rel. 34, Created) O1-CCT-1996 (Rel. 34, Last sequence update) O5-UUL-2004 (Rel. 44, Last annotation updat Interleukin-5 precursor (IL-5) (T-cell repl (Bosinophil differentiation factor).
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                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                  Bukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00432; INTERLEUKINS.
ProDom; PD006721; Interleukin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U91947; AAB51382.1;
HSSP; P05113; 1HUL.
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InterPro; IPR000186; Interleukin_5.
developing B similarity).
                                                                                                                                                                                                                                            TaxID=9913;
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Glycoprotein; Growth factor; Sign
1 19 By similarity.
20 134 Interleukin-5;
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84.1%;
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Pred. No. 7
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L replacing
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Best Local S
Matches 93
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PRODOM; PD006721; Interleukin 5
Cytokine; Glycoprotein; Growth
SIGNAL 1 21 By
CHAIN 22 134 In
DISULFID 63 63 In
DISULFID 105 105 In
                                                                                                                                                                                                                                                                                                                                                                                        Ovis aries (Sheep).
Eukaryota; Metazoa; (
Mammalia; Eutheria; (
Caprinae; Ovis.
                                                                                                            Seow H.-F., David M.-J., McWaters P.G., Hurst "Cloning of ovine interleukin-5 cDNA."; Submitted (AUG-1995) to the EMBL/GenBank/DDBJ-I- FUNCTION: Factor that induces terminal diddeveloping B-cells to immunoglobulin secre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IL5_SHEEP STANDARD; PRT; 132 AA.
Q28586;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 34, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing
(Essinophil differentiation factor).
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Bryson C.E., Viney E.,
Submitted (JUL-1995) t
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InterPro; IPR000186; Interleukin_5.
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HSSP; P05113; 1HUL.
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SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
                          SIMILARITY: Belongs to
                                             similarity).
SUBUNIT: Homodimer; disulfide-linked SUBCELLULAR LOCATION: Secreted.
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Interchain (with C-63)
N-linked (GlcNAc. . .)
N-linked (GlcNAc. . .)
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Pred. No. 1.5e-41;
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actyla; Ruminantia; Pecora; Bovidae;
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                          family.
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(By
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01-OCT-2002
01-MAR-2004
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DISULFID
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                                                                                                                                                                                                        Heraud J.M., Lavergne A., Kazanji M.; "Molecular cloning, characterization, a monkey ( Saimiri sciureus) Thi and Th2 Immunogenetics 54:20-29(2002).
EMBL; AF294756; AAK92043.1; -.
                                                                                                                                                                                                                                                                                                                                         Saimiri sciureus (Common squirrel monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                      888
                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE=21972723; PubMed=11976788; DOI=10.1007/800251-002-0443-y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam; PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U17053; AAB60629.1;
EMBL; U17052; AAB60629.1;
EMBL; U35038; AAC99991.1;
HSSP; P05113; 1HUL.
                                                                                                                   GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005137; F:interleukin-5 recept
GO; GO:0006955; F:immune response; IEA.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
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                                                                                            PRINTS; PRO0432; INTERLEUKINS
                                                                                                                                                                                                                                                                                                                                                                                         Interleukin-5
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                                                                                                           PF02025;
                                                                                                                                                                                             P05113; 1HUL.
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       Similarity 75; Conser
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                                                               PD006721; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AVESTMORTVAETLTLLSTHQTLLIGDGNLMIPTPQHTNHQLCIEEVFQGIDTLKNQTAQ
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(TrEMBLrel. 22, Last sequence update)
(TrEMBLrel. 26, Last annotation updat
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                                                               Interleukin_5; 1.
; 15210 MW; BAFACCA5DB48767C CRC64;
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                     62.6%;
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       ; Score 382; DI
; Pred. No. 1.50
11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interchain (with C-103) (By Interchain (with C-61) (By N-linked (GlcNAc. . .) (Pot N-linked (GlcNAc. . .) (Pot N-linked (GlcNAc. . .) (Pot N-linked (GlcNAc. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 487; DB 1;
Pred. No. 3.7e-41;
3; Mismatches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    th factor; Signal.
By similarity.
Interleukin-5.
                                                                                                                                                    receptor binding; se; IEA.
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DB 2;
1.5e-30;
24;
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                                  Length 134;
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         Indels
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Cebinae; Saim
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(By similarity).
(Potential).
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                                                                   Query Match
Best Local
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                                                                                                                          Cytokine;
SIGNAL
CHAIN
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CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                            SEQUENCE
                                                                                                                                                                                                          PRINTS; PRO0432; INTERLEUKINS.
ProDom; PD006721; Interleukin 5; 1.
Cytokine; Glycoprotein; Growth factor; Sign
Cytokine; Glycoprotein; By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mansour M., Karmilowicz M., Hawrylik S.J., Nalcerio B., Conklyn M.J., Lilly C.M., Drazen J.M., Lee S.B., Auperide Wet J.R., Cohan V.L., Showell H.J., Danley D.E., "Production and characterization of guinea pig IL-5 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-DEC-1998
05-JUL-2004
                                                                                                                                                                                                                                                                      Pfam; PF02025; IL5;
                                                                                                                                                                                                                                                                                                                HSSP; P05113; 1HUL.
                                                                                                                                                                                                                                                                                                                          EMBL; U34588; AAB61357.1; -.
                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=IL5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infected insect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-DEC-1998 (Rel. 37, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing (Essinophil differentiation factor).
                                                                                                                                                                                                                                                                                  InterPro; IPR009079; 4_helix_cyto
InterPro; IPR000186; Interleukin_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: Homodimer; disulfide-linked (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                J. Physiol. 270:L1002-L1007(1996). FUNCTION: Factor that induces term
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAVPO
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                      MNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGEAVD
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135 AA;
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                                                     Score 372; DE
Pred. No. 1.5e
L1; Mismatches
                                                                                                                        Interchain (with C-106) (By similarity)
Interchain (with C-64) (By similarity).
N-linked (GlcNAc. . . .) (Potential).
N-linked (GlcNAc. . . .) (Potential).
N-linked (GlcNAc. . . .) (Potential).
                                                                                                                                                                                                                                                                                                 _cytokine
                                                                                                                                                                                                Interleukin-5
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Hystricognathi; Caviio
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-linked (GlcNAc...)
-linked (GlcNAc...)
EB85252132F52731 CRC6
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                                                     DB 1; 1
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les 23;
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Matches 71
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P46685;
01-NOV-1995
                                                                                                                                                                             DISULFID
DISULFID
CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                  Cytokine;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collabora between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commer entities requires a license agreement (See http://www.isb-sib.ch/annou or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Interleukin-5 precursor (IL-5) (T-cell replacing
(Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                          EMBL; L26033; AAA99971.1; -.
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SUBUNIT: Homodimer; disulfide-linked (By similarity).-!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Cercocebus.
                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                PRINTS; PR00432; INTERLEUKIN5
ProDom; PD006721; Interleukin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cercocebus torquatus atys (Red-crowned mangabey) (So
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=IL5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nonhuman primates."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=96003435; PubMed=7561102;
Villinger F.J., Brar S.S., Mayne A.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Comparative sequence analysis of cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity).
                                                                                                                                                                                                                                                                                                                                               PF02025;
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83
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                                                                                                                                                                       Ne; Glycoprotein; Growth factor
1 19 By simile
20 134 Interchai
0 63 63 Interchai
1 105 105 Interchai
2 2 2 O-linked
47 47 N-linked
134 AA; 15339 MM.
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                                                                                                                                  Similarity
TVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES
            AVDKLFQNLSLIKEHIBRQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES
                                                        EIPTSALVKETLTLLGTHRTLLIGNETLRIPVPVHKHHQLCTEEIFQGIGTLESQTLQGG
                                                                      ENPANRLVAETLILLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      155:3946-3954(1995).
                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                   59.2%;
                                                                                                                                                                          By similarity.

Interleukin-5.
Interchain (with C-105) (By similarity).
Interchain (with C-63) (By similarity).
O-linked (By similarity).
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
MW; 7BDD491C437981ED CRC64;
                                                                                                                  Score 361; DB 1;
Pred. No. 1.9e-28
7; Mismatches 2
                                                                                                                                                                                                                                                                                                 factor; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134
                                                                                                                                                                                                                                                                                                                                                                                                                                                     moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chikkala N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ⋛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                genes from
                                                                                                                                              Length 134;
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                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ansari A.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (By
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ILE_MERNIT 12
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Best Local S
Matches 69
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DISULFID
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01-NOV-1997 (Rel. 35, Last sequence upd.
05-JUL-2004 (Rel. 44, Last annotation u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercia entities requires a license agreement (See http://www.isb-sib.ch/announce or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mai Z., Klei T.R.;
Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: Factor that induces terminal differentiation
developing B-cells to immunoglobulin secreting cells (E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF02025; IL5; 1.
PRINTS; PR00432; INTERLEUKIN5
ProDom; PD006721; Interleukin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; L37780; AAA65675.1; -. HSSP; P05113; 1HUL.
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia, Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rissum=Spleen;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10047;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity).
SUBUNIT: Homodimer; disulfide-linked (By similarity)
SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the IL-5 family.
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61
103
45
74
78
88
132 AA;
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132
61
103
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74
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             58.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 358; DB 1; I
Pred. No. 3.8e-28;
8; Mismatches 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Interchain (with C-103) (By similarity).
Interchain (with C-61) (By similarity).
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of late-
                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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factor)

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Milburn M.V., Hassell A.M., Danwert N.C.;
Proudfoot A.E.I., Graber P., Wells T.N.C.;
"A novel dimer configuration revealed by t
                                                                                                                                                                    MEDLINE=91243878; PubMed=2037074; DOI=10.1016/0014-5793(91)80553-F; Proudfoot A.E.I., Davies J.G., Turcatti G., Wingfield P.T.; "Human interleukin-5 expressed in Escherichia coli: assignment of t disulfide bridges of the purified unglycosylated protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Isolation and characterization of lymphokine cDNA of mouse and human IgA-enhancing factor and eosinoshi; factor activities: relationship to interleukin 5.", proc. Natl. Acad. Sci. U.S.A. 84:7388-7392(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=88041112; PubMed=2823259; Yokota T., Coffman R.L., Hagiwara H., Yokota K., Gemmell L., Shrader B., Yar Hoy P., Pene J., Briere F., Spits H., Lee F.D., Arai N., Arai K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Campbell H.D., Tucker W.Q.J., Hort Y., Martinson M.E., Mayo G., Clutterbuck E.J., Sanderson C.J., Young I.G.; "Molecular cloning, nucleotide sequence, and expression of the gene encoding human eosinophil differentiation factor (interleukin 5).", Proc. Natl. Acad. Sci. U.S.A. 84:6629-6633(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=88059042; PubMed=2824500; Tanabe T., Konishi M., Mizuta T., Noma "Molecular cloning and structure of the J. Biol. Chem. 262:16580-16584(1987).
                                                                   X-RAY CRYSTALLOGRAPHY (2.4 ANGSTROMS).
MEDLINE=93247642; PubMed=8483502; DOI=10.1038/363172a0;
Milburn M.V., Hassell A.M., Lambert M.H., Jordan S.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FHCRC, Seattle, WA (
Submitted (FEB-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
Honjo T., Takatsu
                                                                                                                                                                                                                                                                                                                                                       Taujimoto M.
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                               "SeattleSNPs. NHLBI HL66682 program for genomic applications, FHCRC, Seattle, WA (URL: http://pga.gs.washington.edu)."; Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nickerson D.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=87066782; PubMed=3024129;
Azuma C., Tanabe T., Konishi M., Kinashi
Yaoita Y., Takatsu K., Hammarstroem L., (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                      DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                              hamster ovary
                                                                                                                                                                                                                                                                                                                                  "Structure
                                                                                                                                                                                                                                                                                                                                                                       Minamitake Y., Kodama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rieder M.J.,
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                                                                                                                                                                                                                                                                             <u>e</u>
                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=90299868;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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Acids Re
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Takatsu K., (FEB-1992)
                                                                                                                                                                                                                                                                                                                                  얁
                                                                                                                                                      283:61-64(1991).
                                                                                                                                                                                                                                                                                                                                                                                                            20-134,
                                                                                                                                                                                                                                                                                             107:292-297 (1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carrington
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                                                                                                                                                                                                                                                                                                            recombinant human cells.";
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es. 14:9149-9158(1986).
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                                                                                                                                                                                                                                                                                                                                                                                          4, AND DISULFIDE BONDS
PubMed=2361960;
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co the EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                       Katayama T.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; V
Catarrhini;
                                                                                                                                                                                                                                                                                                                                interleukin 5
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H., Banchereau J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M. -W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the human interleukin-5 gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rennick D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ŧ.,
                                                                                                                                                                                                                                                                                                                                                                       Adachi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell differentiation factor I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G., Meyerson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i T., }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vertebrata;
i, Hominidae;
                                  the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Honjo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Noma T.,
                                  crystal structure
                                                                                                                                                                                                                                                                                                                                                                     н.,
                                                                                                                                                                                                                                                                                                                                produced by Chinese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                K.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
;;
                                                                                                                                                                                                                                                                                                                                                                       Tanaka
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n P., Luh J.,
, de Vries J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Poe1
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Severinson
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EMBL; J03478; AAA74469.1; --
EMBL; J02971; AAA98620.1; --
EMBL; X12705; CAA31210.1; --
EMBL; X12706; CAA31211.1; --
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TURN
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PDB; 1HUL; X-ray; A/B:
Genew; HGNC:6016; IL5
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                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                HELIX
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                                                                                                                                                                                                                                                                                                                                                   ProDom; PD006721; Interleukin 5; 3D-structure; Cytokine; Direct p: Growth factor; Signal.
                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00432; INTERLEUKINS.
                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR009079; 4_helix_cytokine.
InterPro; IPR000186; Interleukin_5.
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EMBL; AF353265; AAK19759.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  developing B-cells to immunoglobulin secreting
-!- SUBUNIT: Homodimer; disulfide-linked.
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                                                                                                                                                                                                                                                                            CONFLICT
                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                          GO:0005576; C:extracellular; TAS.
GO:0005137; F:interleukin-5 receptor bind
GO:0009626; P:hypersensitive response; TAS.
GO:0006954; P:inflammatory response; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the IL-5 family.
DATABASS: NAMB=R&D Systems' cytokine mini-reviews: IL5;
WWW-"http://www.rndsystems.com/asp/g_sitebuilder.asp?bodyId=207".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: Factor that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        147850;
                                                                                                                                                                                                                                                                                                                                                                                              PF02025; IL5;
                    64
                                                              4
                                                                                   70;
                                                                                            Similarity
                   AVDKLFONLSLIKEHIEROKKRCAGERWRVTKFLDYLOVFLGVINTEWTPES
                                                     ENPMORIVAETLILLSTHRTWLIGDGNIMIPTPENKNHQLCIKEVFQGIDTIKNQTAHGE
TVERLFKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES
                                         EIPTSALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG
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                                                                                   Conservative
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                                                                                                                                     58.4%;
                                                                                                                            15238 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        induces terminal differentiation of late-
                                                                                   16;
                                                                                   Pred. No. 6.1e
6; Mismatches
                                                                                                                                                                                                                                                                       O-linked.
N-linked (GlcNAc. . .).
F -> L (in Ref. 5; CAA31210).
                                                                                                       Score
                                                                                                                                                                                                                                                                                                          Interchain
Interchain
                                                                                                                                                                                                                                                                                                                               Interleukin-5
                                                                                                                            DC984467179556A3 CRC64;
                                                                                                                                                                                                                                                                                                                                                             protein sequencing; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                               receptor binding;
                                                                                            356;
No. 6.
                                                                                                                                                                                                                                                                                                          (with
                                                                                                        DB
                                                                                             1e-28;
                                                                                                                                                                                                                                                                                                                                                                                                                                        TAS.
                                                                                   26;
                                                                                                                                                                                                                                                                                                          1 C-105).
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RESULT 14

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  IL5 MACMU
P48093;
01-FEB-1996
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CARBOHYD
SEQUENCE
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DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EWBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial antities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PRO0432; INTERLEUKINS.
ProDom; PD006721; Interleukin
Cytokine; Glycoprotein; Growth
SIGNAL
1 19
CHAIN
20 132 I
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Bukaryota; Metazoa; Chordata; Craniata
Mammalia; Butheria; Rodentia; Sciurogn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Houard S.,
Bollen A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TL5_SIGHI STANDARD; PRT; 132 AA. (99ESIS; 925-FEB-2003 (Rel. 41, Created) 28-FEB-2003 (Rel. 41, Last sequence update) 05-JUL-2004 (Rel. 44, Last annotation update) Interleukin-5 precursor (IL-5) (T-cell replacing (Eosinophil differentiation factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF148211; AAG16722.1; --
HSSP; P05113; 1HUL.
InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=11054577; DOI=10.1016/S0378-1119(00)00366-8; Houard S., Jacquet A., Haumont M., Daminet V., Milican F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Spleen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=42415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sigmodon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF02025; IL5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    interleukin-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'Cloning, expression and purification of recombinant cotton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Factor that induces terminal differentiation of late-developing B-cells to immunoglobulin secreting cells.
SUBUNIT: Homodimer, disulfide-linked.
SUBCELLULAR LOCATION: Secreted.
SUBILIARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257:149-155 (2000)
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                                                                                                                                                                               FAVENPMNRLVAETLTLLSTHRTWLIGDGNLMIPTPENKNHQLCIKEVPQGIDTLKNQTA
                                                                                                                                                                                                                                                                                     FAVEIPMHTVVKETLIQLSTHRALLTSNETVRLPVPTHKNHQLCIGEIPRGLDILKNQTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glycoprotein; Growth factor; Signal.

1 9 By similarity.
20 132 Interleukin-5.
61 61 Interchain (with C-61) (By similarity).
103 Interchain (with C-61) (By similarity).
104 45 N-linked (GlcNAc. . .) (Potential).
105 74 74 N-linked (GlcNAc. . .) (Potential).
106 88 88 88 N-linked (GlcNAc. . .) (Potential).
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132
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                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15434 MW;
                                                                                                                                                                                                                                                                                                                                                                                       58.0%; Score 354; DE 59.6%; Pred. No. 9.66 tive 17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Sigmodontinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B328B81B2371FEB9 CRC64;
                                                       134
                                                                                                                                                                                                                                                                                                                                                                                                                  1; DB 1;
. 9.6e-28;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 132;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1996 (Rel. 33, Last sequence update) 05-UTL-2004 (Rel. 44, Last annotation update) Interleukin-5 precursor (IL-5) (T-cell replacing (Eosinophil differentiation factor).
                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                           PRINTS; PR00432; INTERLEUKINS.
ProDom; PD006721; Interleukin
Cytokine; Glycoprotein; Growth
                                                                                                                                                                                                                                                                                                                                      InterPro; IPR009079; 4 helix cytokine.
InterPro; IPR000186; Interleukin_5.
Pfam, PF02025; IL5; 1.
                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U19848; AAA86710.1; -. HSSP; P05113; 1HUL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Immunol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-96003435; PubMed=7561102;
Villinger F.J., Brar S.S., Mayne A.E., Chikkala N., Ansari A.A.;
"Comparative sequence analysis of cytokine genes from human and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=IL5;
                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nonhuman primates. ";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Macaca mulatta (Rhesus macaque).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunol. 155:3946-3954 (1995).
FUNCTION: Factor that induces terminal differentiation developing B-cells to immunoglobulin secreting cells (B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the IL-5 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: Homodimer; disulfide-linked (By similarity). SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
                           64
83
                                                        23
                                                                                                                    70;
                                                                                                                                Similarity
                  AVDKLFQNLSLIKEHIERQKKRCAGERWRVTKFLDYLQVFLGVINTEWTPES 115
                                                                         ENPMNRLVAETLITLESTHRTWLIGDGNLMIPTPENKNHQLCIKEVFQGIDTLKNQTAHGE
                                                          EIPASALVKETLALLSTHRTLLIANETLRIPVPVHKNHQLCTEEIFQGIGTLESQTVQGG
TVERLFKNLSLIKKYIGGQKKKCGEERRRVNQFLDYLQEFLGVMNTEWIIES
                                                                                                                                                                                                                                                                               Glycoprotein;
1 19
                                                                                                                                                                              134 AA;
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63
105
22
47
                                                                                                                   Conservative
                                                                                                                                                                                              134
63
105
22
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47
                                                                                                                                                                              15150 MW;
                                                                                                                                57.7%;
                                                                                                                                                                                                                                                                                 ; Growth fac
                                                                                                                   ; Score 352; DB 1; ; Pred. No. 1.5e-27; 15; Mismatches 27
                                                                                                                                                                           Interchain (with C-105) (By similarity).
Interchain (with C-63) (By similarity).
O-linked (By similarity).
N-linked (GlCNAC. . .) (Potential).
N-linked (GlCNAC. . .) (Potential).
pc985ECF4BABB66A3 CRC64;
                                                                                                                                                                                                                                                                                  By similarity.
                                                                                                                                                                                                                                                                 Interleukin-5
                                                                                                                                                                                                                                                                                                factor;
                                                                                                                                                                                                                                                                                                Signal.
                                                                                                                    27;
                                                                                                                                              Length 134;
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Command line parameters:

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-Q-[cgp2_1/USP70_gpo2l_p/US10787382/runat_04082005_084753_19321/app_query.fasta_1.590
-Q=[cgp2_1/USP70_gpo2l_p/US10787382-runat_04082005_084753_19321/app_query.fasta_1.590
-DB=Issued_Patents_NA -QPMT=fastap_-SUPFIX=rni_-MINMATCH=0.1 -LOOPCI=0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX=biosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-LIST=45 -DOCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -MAXLEN=200000000
-MODE=LOCAL -OUTFMT=pto -NORM-ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=US10787382 @CGN 1 1_141 @runat _04082005_084753_19321 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEGUERY -NGE_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-NMAP -LARGEGUERY -NGE_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -PGAPOP=6
-PGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Maximum Match 100%
Listing first 45 summaries
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DB seq length:
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
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1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
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US-09-322-409-83

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US-09-451-527-84

US-09-322-409-80

US-09-322-409-80

US-09-451-527-82

US-09-451-527-82

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GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: WONDERLING AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REPERENCE: IM-2-C1
FILE REPERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT APPLICATION NUMBER: 409/087,306
EARLIER APPLICATION NUMBER: 409/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
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SEQ ID NO 83
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; TYPE: DNA
; ORGANISM: Canis familiaris
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APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: MONDERING, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REPERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT FILING DATE: 1999-12-01
FEARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER FILING DATE: 1999-05-28
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
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US-09-451-527-83
; Sequence 83, Applic
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; TYPE: DNA
; ORGANISM: Canis familiaris
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                                               GGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAGCGC
                                                                      GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
                                                                                                            CAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCCCAC
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; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis f
US-09-451-527-84
RESULT 5
US-09-322-409-80
; Sequence 80, Ap
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APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLBIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C2 CURRENT FILING DATE: 1999-12-01 CURRENT FILING DATE: 1999-12-01 EARLIER APPLICATION NUMBER: 09/322,409 EARLIER APPLICATION NUMBER: 09/322,409 EARLIER FILING DATE: 1999-05-28 EARLIER APPLICATION NUMBER: 60/687,306 EARLIER APPLICATION NUMBER: 60/687,306 EARLIER APPLICATION NUMBER: 60/687,306 EARLIER FILING DATE: 1998-05-29 NUMBER OF SEQ ID NOS: 174
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 842
**TORTHE: ACA: **TORTHE NOTE: ACA: **TORTH
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APPLICANT: Yang, Shumin
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ORGANISM: Canis familiaris
FEATURE:
NAME/KEY: CDS
LOCATION: (29)...(430)
US-09-322-409-80
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Best Local Similarity:
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APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.

ITTLE OF INVERTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1999-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 80
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GENERAL INFORMATIO
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
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REFERENCE: IM-2-C1

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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Droitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUC:
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT PILING DATE: 1999-12-01
FEARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
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Best Local Similarity:
Query Match:
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US-09-451-527-80
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TYPE: DNA
; ORGANISM: Canis familiaris
US-09-322-409-82
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SEQ ID NO
LENGTH:
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GENERAL INFORMATION:
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CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
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APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.

ITITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/09/451,527

CURRENT FILING DATE: 1999-12-01

EARLIER APPLICATION NUMBER: 09/322,409

EARLIER APPLICATION NUMBER: 09/05-28

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 174

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 82

LENGTH: 610
                                                 ; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canie f
US-09-451-527-82
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US-09-451-527-82/c
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Best Local Similarity:
Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-787-382-5 (1-134) x US-09-451-527-80 (1-610)
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ORGANISM: Canis i
FEATURE:
NAME/KEY: CDS
LOCATION: (29)...
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Percent Similarity:
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Query Match:
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Best Local Similarity:
Query Match:
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APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONCERNING
TITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEQ ID NOS: 8
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09371615A Patent No. 6537781
                                                                                                                                                                                                                                                                SEQ ID NO 1
                                                                                                                                                                                                                          LENGTH: 405
TYPE: DNA
ORGANISM: Canis familiaris
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            AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUC:
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
SARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTMARE: PATENTIN DATE: 1298-05-29
NUMBER OF SEQ ID NOS: 154
SOFTMARE: PATENTIN Ver. 2.0
SEQ ID NO 85
LENGTH: 345
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Best Local Similarity:
Query Match:
DB:
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US-09-322-409-85
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ORGANISM: Canis familiaris
EEATURE:
NAME/KEY: CDS
LOCATION: (1)..(345)
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HisGlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGlu 99
                                                                             HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla
                                                                                                                                                       HisArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn
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                                                       CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC
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181

CACGGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAG

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Query
DB:
; Sequence 85, Application U
; Patent No. 6482403
; GENERAL INFORMATION;
APPLICANT: Sim, Gek-Kee
; APPLICANT: Yang, Shumin
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US-09-451-527-85
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Query Match:
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US-09-322-409-87/c
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; ORGANISM: Canis familiaris
US-09-322-409-87
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Vang, Shumin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
NUMBER OF SEQ ID NOS: 154
NUMBER: DATE: 1998-05-29
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SEQ ID NO 87
LENGTH: 345
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Percent Similarity:
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Query Match:
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; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(345)
US-09-451-527-85
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APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS,
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1999-05-28
EARLIER FILING DATE: 1998-05-29
NUMBER: 0F SEQ ID NOS: 174
NUMBER: 0F SEQ ID NOS: 174
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANIME AND FELINE IMMUNOREGULATORY PROTEINS,
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT APPLICATION NUMBER: 09/312,409
EARLIER APPLICATION NUMBER: 09/32,409
EARLIER APPLICATION NUMBER: 60/087,306
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TYPE: DNA
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NUMBER OF SEQ ID NOS: 174

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 87

LENGTH: 345

TYPE: DIA

ORGANISM: Canis familiaris
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Best Local Similarity:
                                 US-10-787-382-5 (1-134) x US-09-079-839-2 (1-816)
                                                                                Query Match:
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Best Local Similarity:
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APPLICANT: Weltman, Joel K.
APPLICANT: Karim, Aftab S.
TITLE OF INVENTION: INHIBITION OF EOSINOPHILIC INFLAMMATION
FILE REFERENCE: 09998/002001
                                                                                                                                                                                                                                                                      SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09079839
Patent No. 6048726
                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/079,839
CURRENT FILLING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 2
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                   LENGTH: 816
TYPE: DNA
ORGANISM: Homo sapiens
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 MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe
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Conservative:
Mismatches:
Indels:
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                                TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 816 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1236, Application US/09023655
Patent No. 6607879
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/C
FILING DATE: HEREWITH
CLASSIPICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Cocke, benjart
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
COMPOSITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS
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CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PH
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                        CLASSIFICATION:
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                     TOPOLOGY: linear
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405 GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 446
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Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
Search completed: August
Job time : 121.932 secs
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US-09-023-655-1236
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                                                                                                                           61 GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
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225 CAACTGTGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAA 284
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424.00
76.87%
64.18%
60.92%
        7, 2005, 00:14:16
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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31
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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
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-MODEL=frame+_p2n.model -DEV=xlp
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DB seq length: 2000000000
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
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696
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                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
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gn2 6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
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!_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
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_6/ptodata/2/pubpna/USO8_<u>PUBCOMB</u>.seq:*
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/ptodata/2/pubpna/US10_NEW_PUB.seq:*/ptodata/2/pubpna/US11A_PUBCOMB.seq:
                                            /ptodata/2/pubpna/US10H
/ptodata/2/pubpna/US10I
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1561.024 Million cell updates/sec
                                            PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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816 864 864 864 864 1658 1658 3241 6727	459 816 816 858 858 858 858 858 1658	345 345	LL444	1	402 402 402 402 402 402 402	Length
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774-12 911-14 911-12 974-12 974-12 911-12 911-12 911-12 911-12 911-12 911-12	10-880 10-191 10-929 10-880 10-295 10-295 10-846 10-846 10-846	-10-262- -10-262- -10-787- -10-787-	US-09-755-633-21 US-09-757-382-21 US-09-755-633-9 US-09-755-633-11 US-09-755-633-11 US-10-218-654-87	US-09-755-633-4 US-09-755-633-6 US-10-218-654-80 US-10-218-654-82 US-10-262-439-80 US-10-262-439-82 US-10-787-382-6 US-10-787-382-6	- 633-	ID
Sequence 14, Appl Sequence 14, Appl Sequence 12, Appl Sequence 12, Appl Sequence 18, Appl Sequence 18, Appl Sequence 18, Appl Sequence 91, Appl Sequence 91, Appl	85, App. 90, App. 87, App. 87, App. 87, App. 10, App. 10, App. 10, App. 10, App. 10, App. 119, App. 1336	e 85, e 87, e 11,	21, e 21, 9, 1 11, e 85, e 87,	, , , , , , , , , , , , , , , , , , ,		ption

ALIGNMENTS

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RESULT 1
US-09-755-633-7
                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Meber, Eric R.
                                                                                                                                                                                                                                                                                                                             Sequence 7, Application US/09755633 Patent No. US20020127200A1
PILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
                                                                                                                                               TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
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1998-05-29

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; TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-8
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TYPE: DNA
; ORGANISM: Canis familiaris
US-09-755-633-7
Alignment Scores:
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Best Local Similarity:
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                                                                           SEQ ID NO 8
LENGTH: 402
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SEQ ID NO 7
                                                                                                       APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Bric R.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MCLECULES, AND USES THEREOF
FILE REFERENCE: IN-2-C1-C1
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR PILING DATE: 1999-05-28
PRIOR PILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOPTWARE: Patentin Ver. 2.1
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver.
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 83
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
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Best Local Similarity:
Query Match:
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US-10-218-654-83
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 US-10-787-382-5 (1-134)
                                                                                                                Pred. No.:
                                                                                                                                Alignment Scores:
                                                                                                                                                                US-10-218-654-83
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Publication No. US20030099609A1
GENERAL INFORMATION:
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Indels:
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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Sequence 84, Application US/10218654

Publication No. US20030099609A1

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT FILING DATE: 1090-05-28
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
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US-10-218-654-84/c
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Best Local Similarity:
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TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-84
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ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
ITILE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT FILING DATE: 2002-09-30
CURRENT FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
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US-10-262-439-83
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                        GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
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                                                                                                                                                                               GCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACTCAT 120
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Sequence 84, Application US/10262439

Publication No. US20030143196A1

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Vang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT PILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: US/9/451,527
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOPTWARE: Patentin Ver. 2.0

1 DESCRIPTION OF SEQ ID NOS: 174
1 SOPTWARE: Patentin Ver. 2.0
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                       GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln 120
                                                                             GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
                                                                                                                                    GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis
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                                                             GGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAGCGC 103
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US-10-787-382-8/c
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GENERAL INFORMATION:

APPLICANT: Yang, Shumin

APPLICANT: McCall, Catherine A.

FITTLE OF INVENTION: ACID MCLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C1-C1

FULE REFERENCE: IM-2-C1-C1

CURRENT APPLICATION NUMBER: US/10/787,382

CURRENT PILING DATE: 2004-02-24

PRIOR APPLICATION NUMBER: US/99/755,633

PRIOR FILING DATE: 2001-01-05

PRIOR FILING DATE: 1999-05-28

PRIOR FILING DATE: 1998-05-28

PRIOR APPLICATION NUMBER: 60/087,306

PRIOR FILING DATE: 1998-05-29

NUMBER OF SEG ID NOS: 21

SOFTWARE: Patentin Ver. 2.1

SEG ID NO 7

LENGTH. 402
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Best Local Similarity:
Query Match:
DB:
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; ORGANISM: Canis
US-10-787-382-7
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US-10-787-382-7
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                  ValPheLeuGlyVallleAsnThrGluTrpThrProGluSer 134
                                                                                                 GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln
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GTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT
                                                                           CAAAAAAAAAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAGTTCCTAGACTACCTGCAA
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US/10787382

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APPLICANT: Yang, Shumin
APPLICANT: WeCall, Catherine A.
APPLICANT: WeCall, Catherine A.
APPLICANT: Weber, Eric R.
APPLICANT: Weber, Eric R.
ITITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOP FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 21
SOPTWARE: Patentin Ver. 2.1
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US-09-755-633-4
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; ORGANISM: Canis familiaris
US-10-787-382-8
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                                                     GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
                                                                                                                                    Sequence 4, Application US/09755633 Patent No. US20020127200A1
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TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1
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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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US-09-755-633-6/c
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; LOCATION: (29)..(430)
US-09-755-633-4
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                                                                                                                                                                                                                                                     Sequence 6, Application US/09755633 Patent No. US20020127200A1 GENERAL INFORMATION:
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TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1 CURRENT APPLICATION NUMBER: US/09/755,633

CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR PILING DATE: 1998-05-29
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
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CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                          APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Bric R.
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PatentIn

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APPLICANT: Yang, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANIME AND FELLINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/03/32,409
PRIOR APPLICATION NUMBER: 00/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
CONTENTS. DESCRIPTION OF SEQ ID NOS: 154
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (29)..(430)
US-10-218-654-80
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US-10-218-654-80
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Publication No. US20030099609A1
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                                                                                                                SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 80
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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TYPE: DNA
ORGANISM: Canis:
                                                             TYPE: DNA ORGANISM: Canis familiaris
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FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEO ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 82
LENGTH: 610
TYPE: DNA
ORGANISM: Canis familiaris
US-10-218-654-82
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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                                                                     Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 82, Application US/10218654
Publication No. US20030099609A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                              APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Munthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
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Conservative:
Mismatches:
Indels:
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Matches:
  Gaps:
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APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.

APPLICANT: Wonderling, Ramani S.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/10/262,439

CURRENT FILING DATE: 2002-09-30

PRIOR APPLICATION NUMBER: US/09/451,527

PRIOR APPLICATION NUMBER: US/09/451,527

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR FILING DATE: 1999-12-01

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR FILING DATE: 1999-05-29

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR FILING DATE: 1998-05-29

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR FILING DATE: 1998-05-29

PRIOR FILING DATE: 1998-05-29

PRIOR APPLICATION WIMBER: 00/087,306

PRIOR FILING DATE: 1998-05-29

PRIOR APPLICATION NUMBER: 00/087,306

PRIOR APPLICATION NUMBER: 00/087,306
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Best Local Similarity:
Query Match:
DB:
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US-10-262-439-80
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MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe
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APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Wonderling, Matthew J.

APPLICANT: Wonderling, Ramani S.

ITILE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/10/262,439

CURRENT PILING DATE: 2002-09-30

PRIOR APPLICATION NUMBER: US/99/451,527

PRIOR APPLICATION NUMBER: US/99/451,527

PRIOR APPLICATION NUMBER: 09/322,409

PRIOR FILING DATE: 1999-05-28

PRIOR APPLICATION NUMBER: 60/087,306

PRIOR FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 174

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 82

TENTUTE: 610
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Best Local Similarity:
Query Match:
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ORGANISM: Canis familiaris
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ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
                                                                                                                          ATGAGAATGCTTCTGAATTTGAGTTTGCTAGCTCTTGGGGCTGCCTATGTTTTCTGCCTTT 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT
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                                        GCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCCTCCACTCAT 463
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GENERAL INFORMATION:

APPLICANT: Yang, Shumin
APPLICANT: Weber, Eric R.

APPLICANT: Weber, Eric R.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1-C1
CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 1096-05-29
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1998-05-29
VUMBER OF SEQ ID NO 4
SEQ ID NO 4
SEQ ID NO 4
SEQ ID NO 5
CRIANISM: Canis familiaris
FEATURE:
NAMEKEY: CDS
LOCATION: (29)..(430)
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Best Local Similarity:
Query Match:
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Publication No. US20040191868A1
GENERAL INFORMATION:
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GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
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GTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT
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Search completed: August 7, 2005, 03:15:59
Job time : 559.45 secs

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CA31118	CN37128	CB04760	BQ01824	CO89601	AJ74522	CB04760	AW06819	BI56125	ВН00963	BE920538	CD30528	BM28418	CR72737	CF23470	BU22758	CL30164	BU19865	AA68967	BW57372	CD89479	BI24788	CR02624	5	BQ598873	w	_	w	ŧπ	177	CD55968	·	_	8	CD559536	CD55968
7 UI-CF-FNO	6 170006000	7 NISC_9903	4 UI-H-DH1-	8 BovGen_24	5 AJ745225	NISC_990	8 cn23c07.y	7 603256408	5 ef31c06.x		6 StrPu691.	4 ki31b02.y	3 Tetraodon	0 PtaJXT001	8 603800631	0 gbs2_CH25	9 DCBCKG01	7 vs03c02.r	7 BW573727	3 G118.127C	7 602959820	7 Reverse s	4 DKFZp469N	MI-P-E4-	Reve					8 AGENCOURT			Home	AGE	9 AGENCOURT

ALIGNMENTS

AV412020
AV412020
AV412020
Homo sapiens IL5 gene, VRTUAL TRANSCRIPT, partial sequence, genomic survey sequence.

ACCESSION
ACCESSION
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Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
Unpublished (1999)
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456 bp m
AGENCOURT 14497057 NIH MGC 195 Homo
IMAGE: 971772 5', mRNA sequence.
                                                                                                                                                                                                                                                                                        Homo sapiens
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
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/db_xref="taxon:9606"
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High quality sequence stop: 456.
Location/Qualifiers
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/db xref="taxon:9606"
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/clone_lib="NIH_MGC_195"
/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site_1: loxP-Sal1; Site_2:
/note="Vector: poled condition of the sequences
complete open reading frame (based on known gene sequences
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
information on which gene each clone represents, please
visit our annonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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CD559686 456 bp mRNA 1 AGENCOURT_14497093 NIH_MGC_195 Homo sapiens

linear cDNA clone

EST 11-JUN-2003

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Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK1 row: g column: 11
High quality sequence stop: 456.
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Bldg. 31 Rm10A07 Bethesda, MD 20892
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
                                                                                      AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
                                                                                                                              MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR-amplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences available from NCBI's RefSeg). Template for PCR is CDNA derived from either pooled cytoplasmic polya RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585755.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: ggapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
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DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC Clone distribution information can be
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73 GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 32
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High quality sequence stop: 470.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: IRBK1 row: g column: 10
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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/clones_routhis_library have been
pCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from sither pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxp sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Homo sapiens"
|mol_type="mRNA"
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clone="IMAGE:6971771"
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RESULT 5
CD559533
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AUTHORS
TITLE
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KEYWORDS
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Query Match:
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On Jun 10, 2003 this sequence version replaced gi:31585601.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs r@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
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86 GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CD559533 492 bp mRNA linear EST AGENCOURT 14496993 NIH MGC 195 Homo Bapiens cDNA clone IMAGE:6971771 5', mRNA Bequence.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                        Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAACTGTGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAA 207
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln 120
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430.00
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Conservative:
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High quality sequence start: 14
High quality sequence stop: 492.
                      BC066279
                                                                                                         GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT
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                                                                                                                                                    ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134
                                                                                                                                                                                                                       GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPhoLeuAspTyrLeuGln
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6279 458 bp mRNF
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/lab host="UMAGE:6971771"
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/clone_lib="NIH_MGC_195"
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loxP-HiddIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
exomplete open RCBI's RefSeg). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled totach and Knashington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Prederick, NCI-Frederick, Prederick, MD 21702). For
information on which gene each clone represents, please
visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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|mol_type="mRNA"
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Conservative:
Mismatches:
Indels:
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                      mRNA
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    HTC 12-FEB-2004 frame-shift
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PUBMED
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AUTHORS
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   Percent Similarity:
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,

Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carminci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,

Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length
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BC066279
BC066279.1
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
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This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032 This clone has the following problem: frame shifted.

Location/Qualifiers
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

cDNA Sequencing by: Sequencing Group at the Stanford Human

Center, Stanford University School of Medicine, Stanford,

http://www-shgc.stanford.edu

Contact: (Dickson, Mark) mcd@paxil.stanford.edu

Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (03-PEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC Project URL: http://mgc.nci.nih.gov
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Homo sapiens
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                                                                                                                                                                                                                /organism="Homo sapiens"
/mol type="mRNA"
/db xref="taxon:9806"
/clone="IMAGE:6971768"
/tissue_type="PCR rescued c
/clone_tis="NIH MGC_195"
/lab_host="DH10B"
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BC066280
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                            AUTHORS
TITLE
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     JOURNAL
                                                                                                                                                              Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.P., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheet, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, B.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Gennerce, Name of Marra, M.A.
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Direct Submission
Submitted (03-FEB-2004) National Institutes of Health, Mammalian
                       Strausberg, R.
Direct Submission
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Homo sapiens cDNA clone IMAGE:6971769,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84 CCCACAGAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCAT 143
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CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94:
Web site:
http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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Tissue Procurement: Narayan Bhat
                                                                                                                                CANANANANAGTGTGGAGAAGAAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCA
                                                                                                                                                                                                                                                                                                                                    GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
                                                                                                                                                                                                                      GGGGGTACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGC 323
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                                                                                                                                                                 Gln-LysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGl
                                                                                                                                                                                                                                                      GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg 100
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                                           AGAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 426
                                                                  nValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134
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중 유

21

AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis

40

ATGAGGATGCTTCTGCATTTGAGTTTGCTAGCTCTTGGAGCTGCCTACGTGTATGCCATC 87

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                                                                          US-10-787-382-5 (1-134) x CD559535 (1-463)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plate: IRBK1 row: g column: 08 High quality sequence stop: 463.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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AGENCOURT 14496865 NIH MGC 195 Homo
IMAGE:6971769 5', mRNA sequence.
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe 20
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/note="Vector: pDNR-Dual; Site_1: loxP-Sall; Site_2:
/cnplified using gene-specific primers to contain the complete open reading frame (based on known gene sequences complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is CDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues from 10 biographics of the complete total RNA from 10 different tissues
                                                                                                                                                                                                                                                                                                                                                                               visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the poMR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, MD 21702). For information on which gene each clone represents, please
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   National Cancer Institute / NIH
Bldg. 31 Rm1DA07 Bethesda, MD 20892
Bmail: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Preparation: Bhat I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: IRBK1 row: g column: 07
High quality sequence stop: 467.
Location/Qualifiers
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
Unpublished (1999)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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//tlssue_type="mixed"
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//note="Vector: pDNR-Dual; Site_1: loxP-Sall; Site_2:
/note="Vector: pone from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is cDNA
derived from MCBI's RefSeq). Template for PCR is cDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
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Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous fip site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.data Note: this is a NIH_MGC Library."
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lignment Scores: red. No.: core: screet Similarity st Local Similar tery Match:	lignment Scores: 8.07e-43 Length: 467 core: 417.00 Matches: 87 excent Similarity: 77.04% Conservative: 17 conservative: 17 17 srcent Similarity: 64.44% Mismatches: 30 lery Match: 59.91% Indels: 1 sr 6 Gaps: 0
3-10-787-382-5	-382-5 (1-134) x CD559690 (1-467)
	1 MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe 20
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	41 ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60
	61 GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 80
	81 GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg 100
	101 Gln-LysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGl 120
0 \	120 nValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134 ::: 83 AGAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 41
SULT 10 0559689/c OCUS PINITION	CD559689 473 bp mRNA linear EST 19-NOV-2003 4 AGENCOURT 14496901 NIH_MGC_195 Homo sapiens cDNA clone IMAGE:6971769 5', mRNA sequence.
CESSION ERSION SYWORDS	9689.2 GI:38453487
DURCE	Homo sapiens (human)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 473)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics

Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.

Homo sapiens

Email: cgapbs-r@mail.nih.gov Tissue Procurement: Narayan Bhat

CDNA Library Preparation: Bhat Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation

National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892

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On Jun 10, 2003 this sequence version replaced gi:31585604.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
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Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
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1 (Dases 1 to 489)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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IMAGE:6971768 5', mRNA sequence.
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DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
quality sequence start: 17 quality sequence stop: 489. Location/Qualifiers
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Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buctow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,

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Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Boutfard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.B.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and mouse cDNA secuences
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Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Anup Madan, University of Iowa
CDNA Library Preparation: Anup Madan, University of Iowa
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Neurogenomics Research Lab,
                                                                                                                                                                           Submitted (16-APR-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer
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Pan troglodytes
Eukaryota; Mettazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
1 (bases 1 to 405)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
                                                                                                                 GSS.
Pan troglodytes (chimpanzee)
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Pan troglodytes IL5
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Series: Plate: Row: Column: 0
This clone has the following problem: frame shifted.
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Kejariwal, A.,

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Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                       Homo sapiens
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     sapiens (human)
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     US-10-787-382-5 (1-134)
                                                                       Query Match:
                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                 Alignment Scores:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-romail.nih.gov
Itsaue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequenting Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNI at: http://lmage.llnl.gov Series: IRAK Plate: 172 Row: a Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032 This clone has the following problem: frame shifted.
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1 (Dases 1 to 456)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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Mismatches:
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                                                                                                                                                                                                                                                                       National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethedda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: IRBK1 row: g column: 09
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              On Jun 10, 2003 this sequence version replaced gi:31585756. Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CD559688 467 bp n
AGENCOURT 14496964 NIH MGC 195 Homo
IMAGE: 6971770 5', mRNA sequence.
CD55666
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National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                    e: IRBK1 row: g column: 09 quality sequence start: 11 quality sequence stop: 467.
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/mol type="mRNA"

/mol type="mRNA"

/db xref="reaxon:9606"

/clone="IMAGB:6971770"

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/tissue_type="mtxed"

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/clone_11b="NIH_MGC_195"

/note="Vector: pDNR-Dual; Site_1: loxP-Sall; Site_2:

loxP-HindIII; Clones from this library have been

PCR-amplified using gene-specific primers to contain the
                                                                                                                                                                                                                  ocation/Qualifiers
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complete open reading frame (based on known gene sequences available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxp sites of the pDNR-Dual vector. Library constructed by Dr.

Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For information on which gene each clone represents, please visit our anonymous figs site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat a Note: this is a NH_MGC Library."

2.07e-41 Length:
467
406.00 Matches:
97
76.87% Mismatches:
16
2.07e-41 Length:
467
406.03 Matches:
16
31
58.33% Indels:
1
69aps:
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Alignment Scores:

ORIGIN

S 문 S 밁 S 밁 S 문 Ś 밁 Ś 밁 Ś US-10-787-382-5 (1-134) x CD559688 (1-467) Query Match: Percent Similarity: Best Local Similarity: Score: Pred. No.: 144 203 263 323 383 443 101 81 61 21 AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis 40 84 41 ArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHis 60 ۲ GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln 120 GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis MetArgMetLeuLeuAsnLeuSerLeuLeuAlaLeuGlyAlaAlaTyrValSerAlaPhe 20 ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 134 CCANANANAGTGTGGAGAAGAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAA CCCACAGAAATTCCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCAT ATGAGGATGCTTCTGCATTTGAGTTTGCTAGCTCTTGGAGCTGCCTACGTGTATGCCATC GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT GGGGGTACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGA-CGG GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg CAACTGTGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAA 204 CGNACTCTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCAC 324 85 145 80 264

Search completed: August 7, 2005, 00:10:27
Job time : 2821 secs

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Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q=/cgn2 1/USPT0 spool p/US10787382/runat_04082005_084752_19292/app_query.fasta_1.590
-DB=GenEmbl -QFMT=fastap -SUFFIX=rge -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DCCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=50 -MINLEN=0 -MAXLEN=200000000
-USER=US10787382 @CGN 1 15783 @runat 04082005 084752 19292 -NCPU=6 -ICPU=3
-NO MWAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBIOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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ALIGNMENTS

						COMMENT		JOURNAL		TITLE	AUTHORS	REFERENCE			ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	Locus	BD211562
PC A61K39/395, PC A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535, PC C07K14/54,	5	PR 29-MAY-1998 US 60/087306 PI GRKKER SIM.SHIMIN YANG MATTHEW I DERITZ RAMANI S WONDERLING PC	20	PD 04-JUN-2002	PN JP 2002516104-A/68	OS Canis familiaris (dog)	HESKA CORP	Patent: JP 2002516104-A 68 04-JUN-2002;	and method of using the same	Canine and feline immunoregulatory proteins, nucleic acid molecules	Sim, G., Yang, S., Dreitz, M.J. and Wonderling, R.S.	1 (bases 1 to 345)	Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		Canis familiaris (dog)	JP 2002516104-A/68.	BD211562.1 GI:33021332	BD211562	and method of using the same.	Canine and feline immunoregulatory proteins, nucleic acid molecules	BD211562 345 bp DNA linear PAT 17-JUL-2003	

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Mammalia; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Carnivora; Fissipedia; Canidae; Canis.

B 1 (bases 1 to 345)

S 1m,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
Patent: JP 2002516104-A 69 04-JUN-2002;
HESKA CORP
S Canis familiaris (dog)
PN JP 2002516104-A/69
PD 04-JUN-2002
PR 29-MAY-1999 US 60/087306
PR 29-MAY-1999 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMANI S WONDERLING PC
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Canine and feline immunoregulatory and method of using the same.
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/mol_type="genomic DNA"
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PC GOIN33/15,

PC GOIN33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 CC and feline immunoregulatory proteins, nucleic acid CC molecules and CC method of using the same FH Key Location/Qualifiers

FT source /organism='Canis familiaria /dan''

FT yource /organism='Canis familiaria /dan''
                                                               1 (bases 1 to 345)
Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine IL-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 85 29-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr
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A61K45/00,A61K48/00,A61P37/02,A61P37/04,C07K14/475,C07K14/535,
C07K14/54,
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/db_xref="taxon:9615"
                                         Location/Qualifiers
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                         organism="unknown"
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.
Canine IL-4 immunoregulatory proteins and uses th
Patent: US 6471957-A 7675---
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CATCGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAAT
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.
Caniney II-13 immunoregulatory proteins and uses
Patent: US 6482403-A 85 19-NOV-2002;
Location/Qualifiers
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R. Caniney IL-13 immunoregulatory proteins and uses Patent: US 6482403-A 87 19-NOV-2002;
Location/Qualifiers
1. .345
                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

1 (Dases 1 to 402)

Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid moleculard method of using the same and method of using the same Patent: JP 2002516104-A 66 04-JUN-2002;
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JP 2002516104-A/66
04-JUN-2002
28-MAY-1999 JP 2000551
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And feline immunoregulatory pomolecules and conting the same CC method of using the same FH Key Location
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BD211561
BD211561.1 GI:33021331
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Canis familiaris (dog)
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PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395, PC A61K39/395, PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535, PC C07K14/54, C07K14/56, C07K14/705, C07F1-70.
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Butheria; Carnivora; Fissipedia; Canidae; 1 (bases 1 to 402) Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S. Canine and feline immunoregulatory proteins, nucleic and method of using the same patent: JP 2002516104-A 67 04-JUN-2002;
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/mol_type="genomic DNA"
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PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09, A61K31/7088, A61K38/00, A61K39/21, A61K39/395, PC A61K39/395,
PC A61K39/395,
PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535, PC C07K14/54,
PC C07K14/54,
PC C07K14/56, C07K14/705, C07K16/24, C07K16/28, C12N1/21, C12N5/10, PC G01N33/15,
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Sim, G.-K., Yang, S.,
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/mol_type="genomic DNA"
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine II-4 immunoregulatory proteins and uses thereof
Patent: US 6471957-A 84 29-OCT-2002;
Location/Qualifiers
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Sim,G.-K., Yang,S., Dreitz,M.J. and Wonderling,
Caniney II-13 immunoregulatory proteins and use
Patent: US 6482403-A 83 19-NOV-2002;
Location/Qualifiers
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalla; Eutheria; Carnivora; Fissipedia; Canidae; 1 (bases 1 to 610)
Yang, S., Sellins, K.S., Weber, E. and McCall, C. Canine interleukin-5: molecular characterization of expression of biologically active recombinant proteins.
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ininey IL-13 immunoregulatory proteins and uses
itent: US 6482403-A 84 19-NOV-2002;
Location/Qualifiers
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BD211558.1 GI:33021328
JP 2002516104-A/64.
Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
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Yang,S.

Direct Submission

Direct Submission

Submitted (22-DEC-2000) Immunology, Hesa.

Prospect Parkway, Ft Collins, CO 80525,

Location/Qualifiers

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/translation="MRMILNISILALGAAYVSAFAVENPMNRLVAETLTILSTHRTWL
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Canine and feline immunos and method of using the a BD211559
BD211559 1 GI:33021329
BD201559.1 GI:33021329
JP 2002516104 A/65.
Canis familiaris (dog)
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Canine and feline immunoregulatory proteins, nucle:
and method of using the same
Patent: JP 2002516104-A 64 04-JUN-2002;
HESKA CORP
OS Canis familiaris (dog)
PN JP 2002516104-A/64
PD 04-JUN-2002
PF 28-MAY-1999 UP 2000551002
PR 29-MAY-1998 US 60/087306
PI GEKKEE SIM,SHUMIN YANG,MATTHEW J DREITZ,RAMAN.
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PR 29-MAY-1998 US 60/087306

PI GEKKEE SIM, SHUMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09, A61K31/7088, A61K38/00, A61K38/21, A61K39/00, A61K39/395, PC A61K39/395, A61K48/00, A61K48/00, A61P37/02, A61P37/04, C07K14/475, C07K14/535, PC C07K14/54, C07K14/56, C07K14/705, C07K16/705, C07K16/56, C07K14/56, C07K16/705, C07K16/705, C07K16/705, C07K16/56, C07K16/705, C07K
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C12N15/00,A61K37/02,A61K37/66,C12N5/00 (
G01N33/50,C12N15/00,A61K37/02,A61K37/66,C12N5/00 (
and feline immunoregulatory proteins, nucleic acid CC
molecules and
CC method of using the same
CH Key
Location/Qualifiers
FT CDS (29) (430).
                                          GlnValPheLeuGlyValIleAsnThrGluTrpThrProGluSer
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CAAGTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT
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/mol_type="genomic DNA"
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PAT 17-JUL-2003 cacid molecules

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PN JP 2002516104-A/65

PO 44-UN-2002

PP 28-MAY-1999 US 60/087306

PR 29-MAY-1998 US 60/087306

PR 29-MAY-1998 US 60/087306

PI GEKKGE SIM, SHIMIN YANG, MATTHEW J DREITZ, RAMANI S WONDERLING PC C12N15/09, A61K31/7088, A61K38/00, A61K39/395, PC A61K45/00, A61K31/7080, A61K39/00, A61K39/395, PC A61K45/00, A61K48/00, A61P37/02, A61P37/04, CÖTK14/475, COTK14/535, PC C07K14/56, COTK14/54, COTK16/28, C12N1/21, C12N5/10, PC C07K14/56, C12N15/00, A61K37/02, A61K37/66, C12N1/21, C12N5/10, PC G01N33/15, C12N15/00, A61K37/02, A61K37/66, C12N15/00 CC Canine and feline immunoregulatory proteins, nucleic acid CC molecules and communication for the same FH Key 1.610

PT source 1.610

FT source 1.610
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1 (bases 1 to 610)
Sim,G., Yang,S., Dreitz,M.J. and Wonderling,R.S.
Canine and feline immunoregulatory proteins, nucleic acid molecules and method of using the same
Patent: JP 2002516104-A 65 04-JUN-2002;
HESKA CORP
                                                                           CAAGTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT 181
                                                                                                      GlnValPheLeuGlyVallleAsnThrGluTrpThrProGluSer 115
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-MODEL-ETRAME+ PAL-MODEL-OBV-XIP
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-LOOPEXT=0 - UNITS-blits -START=1 -END=-1 -MATRIX=blosum62 -TRANS-buman48 -Cdi
-LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15
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-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
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610 100.0 610 3 ANZSS447

611 98.5 40.5 40.5 AAF74300

81 513 84.1 393 4 AAF74300

81 610 98.5 40.5 AAF74300

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ALIGNMENTS

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SULT 1

Z55550

AAZ55550;

AAZ55550;

14-MAR-2000 (first entry)

Canine mature interleukin-5 (IL-5) cDNA.

Interleukin-5; IL-5; antibody; canine; inhibitor; immune response; immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canis familiaris.

W09961618-A2.

02-DEC-1999.

28-MAY-1999; 99WO-US011942.

29-MAY-1998; 98US-0087306P.

(HESK-) HESKA CORP.

Sim G, Yang S, Dreitz MJ, Wonderling RS;

WPI; 2000-072623/06.

P-PSDB; AAY58220.
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RESULT 2
AAZ5551/c
ID AAZ555
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AC AAZ555
XX
DT 14-MAR
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DT Canine
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 Interleukin-5; IL-5; antibody; canine; inhibitor; immune response; immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.
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                                                           Canine mature interleukin-5 (IL-5) cDNA complement.
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Sequences AAZ55546-Z5551 represent cDNA sequences encoding canine CC interleukin-5 (IL-5). The invention relates to canine IL-4, canine or feline Flt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha) and feline granulocyte macrophage colony-stimulating factor (GMCSF), and colorides which encode these immunoregulatory proteins. The proteins, their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune cresponse in animals (particularly cats, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including allergies, tumours, inflammation and graft rejection, and to increase the cresponse from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while as ources of inhibitory therapeutics (e.g., antisense oligonucleotides). The proteins may be used to raise antibodies and to screen for modulators of activity, while the antibodies may be used in detection, and in drug
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Sequence 345 BP; 79 A; 78 ű ဂ္ 120 T; 0 U; 0 Other;

Percent Similarity:
Best Local Similarity:
Query Match:
DB: Ś 8 S 문 S 밁 ঠ 밁 문 US-10-787-382-10 (1-115) x AAZ55551 (1-345) **₹** :: Scores: 165 225 285 345 TTTGCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 81 61 41 ب ArgGlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeu HisGlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGlu HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC CACGGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAAGAACACATAGAG 100.00 5.61e-70 Length:
Matches:
Conservative:
Mismatches: Gaps: Indels: 0 0 0 115

46 100 106 80 166 60 226 40 286

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                                                       US-10-787-382-10 (1-115) x AAZ55548
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PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr 20
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on; tumour; cancer; autoimmune disease; vaccine; ss.
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RESULT 4
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Sequences AAZ55546-Z5551 represent cDNA sequences encoding canine II.-1 (Interleukin-5 (II.-5). The invention relates to canine II.-4, canine or feline Plt-3 ligand, canine or feline CD40, canine or feline CD154 (CD40 ligand), canine II.-5, canine II.-13, feline interferon-alpha (IFM-alpha) and feline granulocyte macrophage colony-stimulating factor (GMCSF), and mucleotides which encode these immunoregulatory proteins. The proteins, complete their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune response in animals (particularly cats, dogs, horses and humans). They may be used to treat autoimmune or infectious diseases including callergies, tumours, inflammation and graft rejection, and to increase the response from a co-administered antigen. The nucleotide sequences can also be used for the recombinant production of a protein, while nucleotide fragments are useful as probes, as amplification primers and as sources of inhibitory therapeutics (e.g., antisense oligonucleotides).
                                                                                                                                                                                                                                                                                                                                                                                    Claim 1h; Page 226; 264pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acids encoding immunoregulatory proteins from cats or dogs, useful for treating or preventing e.g. tumors or autoimmune disease
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Nucleic acids encoding immunoregulatory proteins from cats or useful for treating or preventing e.g. tumors or autoimmune di disease.

Claim 1h; Page 223-224; 264pp; English.

Sequences AAZ55546-Z5551 represent cDNA sequences encoding canine CC interleukin-5 (II-5). The invention relates to canine II-4, canine or CE feline Flt-3 ligand, canine or feline CD40, canine or feline CD144 (CD40 (Igand), canine II-5, canine II-13, feline interferon-alpha (IFN-alpha) CC and feline granulocyte macrophage colony-stimulating factor (GMCSF), and cnucleotides which encode these immunoregulatory proteins. The proteins, CC their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune CC may be used to treat autoimmune or infectious disease including CC allorgies, tumours, inflammation and graft rejection, and to increase the CC response from a co-administered antigen. The nucleotide sequences can CC also be used for the recombinant production of a protein, while CC nucleotide fragments are useful as probes, as amplification primers and CC nucleotide fragments are useful as probes, as amplification primers and CC nucleotide fragments are useful as probes, as amplification primers and CC of activity, while the antibodies may be used in detection, and in drug of arctivity, while the antibodies may be used in detection, and in drug

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Sequence 610 BP; 202 A; 114 C; 139 G; 155 Ŧ, 0 U; 0 Other;

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                                                                                                                                                                          21 HisArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn
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CAAGTATTTCTTGGTGTAATAAACACCGGAGTGGACACCGGAAAGT
            GlnValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 115
                                                                               HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla
                                                                                                                                                                                                      ArgGlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeu
                                                                                                                                                               CATCGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAAT
                                       CGCCAAAAAAAAAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAGTTCCTAGACTACCTG
                                                                                                                        CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC
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AAZS5547/c
ID AAZS555
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AC AAZS55
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AC AAZS55
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DT 14-MAR
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DB Canine
XX
XX
Interl
KW immuno

AAZ55547

standard; cDNA; 610

14-MAR-2000

(first entry)

Interleukin-5; IL-5; antibody; canine; inhibitor; immune response; immunoregulation; tumour; cancer; autoimmune disease; vaccine; ss.

Canine interleukin-5 (IL-5) cDNA complement.

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Percent Similarity:
Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequences AAZ55546-Z5551 represent cDNA sequences encoding canine CC interleukin-5 (II-5). The invention relates to canine II-4, canine Or CC feline Plt-3 ligand, canine or faline CD40, canine or feline CD546 (CD40 ligand), canine IL-5, canine IL-13, feline interferon-alpha (IFN-alpha) CC and feline granulocyte macrophage colony-stimulating factor (GMCSF), and cnucleotides which encode these immunoregulatory proteins. The proteins, cc their associated nucleic acids, specific antibodies and inhibitors may be used as vaccines for therapeutic or prophylactic regulation of an immune cresponse in animals (particularly cats, dogs, horses and humans). They can be used to treat autoimmune or infectious diseases including CC allorgies, tumours, inflammation and graft rejection, and to increase the cresponse from a co-administerered antigen. The nucleotide sequences can collectide fragments are useful as probes, as amplification primers and conclectide fragments are useful as probes, as amplification primers and conclectine may be used to raise antibodies and to screen for modulators of activity, while the antibodies may be used in detection, and in drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic acids encoding immunoregulatory proteins from cats or dogs, useful for treating or preventing e.g. tumors or autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-072623/06.
P-PSDB; AAY58219.
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HisGlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGlu
                                                                  HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla
                                                                                                           CATCGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAAT
                                                                                                                                        HisArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn 40
                                                                                                                                                                                         PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr
                                                CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC
                                                                                                                                                                        TTTGCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT
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                                                                                                                                                                                                                                                                                                                                                                                           155 A; 139
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Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention provides the protein and coding sequences of the canine interleukin-5 (IL-5) protein. This can be used to treat allergies, cancer and inflammatory reactions in dogs. The present sequence is one version of the IL-5 coding sequence shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel canine interleukin 5 polymucleotide generating antibodies which are useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 405 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Guo H,
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                                                                                                           CATCGAACTTGGCTGATAGGCGATGGGAAACCTGATGATTCCTACTCCTGAAAATAAAAAT 177
                                                                                                                                           HisArgThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn 40
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                                  HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla 60
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  CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC 237
                                                                                                                                                                                                                             TTTGCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCCTCCACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and polypeptides are used for treating allergies in dogs.
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Percent Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canine interleukin-5 coding sequence #3.
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Query Match: DB:

US-10-787-382-10 (1-115) x AAZ44265

(1-838)

Percent Similarity: Best Local Similarity:

2.07e-56 510.00 92.98% 84.21% 83.61%

Length: Matches:

Conservative: Mismatches: Indels: Gaps:

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                                                                                               This invention describes a novel nucleic acid vaccine for preventing and curing human and pork cysticercosis. The invention involves the formation of a eukaryotic expression plasmid from fusion transcript expression unit consisting of three protective antigen genes (cC1, cC3 and cC4) of pig tenial cysticercus and coexpression unit of related cell factor gamma interferon (IFN-gamma) and pork interleukin 5 (IL-5)] genes. The production and purification process of said nucleic acid vaccine is simple and convenient, the physical and chemical properties of the vaccine are stable, and the vaccine is easy to store and transport, and possesses effective immunological protective function for human and pig cysticercosis. This sequence represents the pig IL-5 gene used in the
   Sequence 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 3; Page 9; 21pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acid vaccine for cysticercosis co-contracted by human and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-087904/08
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The sequences given in AATS0755-56 encode ovine interleukin-5 (IL-5). Ovine IL-5 or IL-12 are used to treat and/or prevent infections in livestock (esp. cows and sheep), particularly where the animals are stressed, e.g. during transport. IL-5 and IL-12 can also be used as adjuvants in vaccines for veterinary use (partic. weakly immunogenic subunit or synthetic peptide vaccines). They may also be used to treat cancer, immunosuppression and allargy, to enhance/suppress the reproductive system and to promote growth or early maturity. Optionally interleukin can be delivered from constructs or delivery cells and antibodies are useful in enzyme immunoassays for rapid diagnosis of infection. The interleukins are immunopotentiators, especially IL-5 promotes growth of early haematopoietic progenitor cells and generation
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24-SEP-1997
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                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of cytotoxic cells from thymocytes, also it stimulates production and secretion of IgM and IgA (in synergism with bacterial endotoxin). II-12 induces production of gamma-interferon by, and proliferation of, T and by cells and increases the (non-)specific cytolytic lymphocyte response. The genetic constructs can also be used for in vitro production of IL-5 or 12. (Updated on 17-OCT-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 399
                                                                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                    295
  355
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                  ValPheLeuGlyValIleAsnThrGluTrpThrProGluSer
                                                                                                                                                                                  GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 61
                                                                                                                                                                                                                                                                                   AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis
 GTTTTCCTTGGTGTGATAAACACAGAGTGGACGATGGAAAGC
                                                    CAAAAAAGGAAGTGTGGAGGAGAAAGATGGAGAGTGAAACAATTCCTCGACTACCTGCAA
                                                                  GlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGln
                                                                                                        GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
                                                                                                                                                                                                                  CAAACTCTGCTGATAGGTGATGGGAACTTGATGATTCCTACTCCTCAGCATACAAATCAC
                                                                                                                                                                                                                                                                    GCTGTAGAAAGTACCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCCCACGCAT
                                                                                                                                                              CAACTATGCATTGAAGAAGTCTTTCAGGGAATAGACACATTGAAGAATCAAACTGCACAA
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exon
                                                                                                                        Cytokine; ovine; sheep; interleukin-5; interleukin-12; II-5; II-11vestock; cow; stress; transport; vaccine adjuvant; veterinary; immunosuppression; allergy; allergy; system; growth; early mantibody; diagnosis; immunopotentiator; early haematopoietic progenitor cell; cytotoxic cell; thymocyte; secretion; IgM; IgA; bacterial endotoxin; gamma-interferon; ss.
                                                                                                                                                                                                                17-OCT-2003
24-SEP-1997
                                                                                                                                                                                              Ovine IL-5 gene.
                                               exon
                                                                                                                                                                                                                                                                  AAT50755
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                                                        "Ovine_IL-5"
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ant; veterinary; growth; early ma

early maturity; cancer;

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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequences given in AAT50755-56 encode ovine interleukin-5 (IL-5). CO Ovine IL-5 or IL-12 are used to treat and/or prevent infections in CC livestock (esp. cows and sheep), particularly where the animals are CC stressed, e.g. during transport. IL-5 and IL-12 can also be used as CI adjuvants in vaccines for veterinary use (partic. weakly immunogenic CC subunit or synthetic peptide vaccines). They may also be used to treat CC cancer, immunosuppression and allergy, to enhance/suppress the CC reproductive system and to promote growth or early maturity. Optionally CC interleukin can be delivered from constructs or delivery cells and CC infection. The interleukins are immunoassays for rapid diagnosis of CC infection. The interleukins are immunopotentiators, especially IL-5 CC promotes growth of early haematopoietic progenitor cells and generation CC of cytotoxic cells from thymocytes, also it stimulates production and CC induces production of IgM and IgA (in synergism with bacterial endotoxin). IL-12 CC induces production of gamma-interferon by, and proliferation of, T and NK CC cells and increases the (non-)specific cytolytic lymphocyte response. The CC genetic constructs can also be used for in vitro production of IL-5 or - CC (Updated on 17-0CT-2003 to standardise OS field)
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                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 520
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid encoding ovine interleukin-5 or -12 - used as vaccine adjuvants and to treat or prevent microbial infections in livestock.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-077528/07.
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27-OCT-1995;
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GlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArg
                                                                     GlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHis 61
                                                                                                                 CAAACTCTGCTGATAGGTGATGGGAACTTGATGATTCCTACTCCTCAGCATACAAATCAC
                                                                                                                                                                              GCTGTAGAAAGTACCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCCCACGCAT
                                                                                                                                                                                               AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis
                                                   CAACTATGCATTGAAGAAGTCTTTCAGGGAATAGACACATTGAAGAATCAAACTGCACAA
                                                                                                                                                                                                                                                                                                                                                                                                         BP; 166 A; 99 C; 124 G; 131 T; 0 U; 0 Other;
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95AU-00006244.
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                                                                                                                                                                                                US-10-787-382-10 (1-115) x AAN91647 (1-370)
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                                                                                                                                                                                                                                                                                                                                                                                 Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 370 BP; 126 A; 73 C; 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Has sites for HindII, BspMI, NcoI, SpeI, BspMII, ApaLI, XmnI, XhoI Ball, PstI, DraIII, BamHI and EcoRI. IL5 acts as a B cell growth a differentiation factor. (Updated on 25-MAR-2003 to correct PA field
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic gene encoding human interleukin-5 - has restriction sites frequent intervals to facilitate manipulation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Edwards
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21-MAR-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-APR-1988;
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                                                                                                GCCATGGAAATTCCCACTAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCAT
                                                                                                                             AlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHis
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CGAACTCTGCTGATAGCCAATGAGACTCTCCGGATTCCTGTTCCTGTACATAAAAATCAC
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                         WPI; 2003-449558/42
                                                                                                                         16-NOV-2001;
16-NOV-2001;
                                                                                                                                                    15-NOV-2002;
                                                                                                                                                                      22-MAY-2003.
                                                                                                                                                                                       WO2003042244-A2
                                                                                                                                                                                                                        misc_feature
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Unidentified.
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New immunogenic analogue of a polymeric protein, useful for preparing
                 P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                               epitope;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               191 GGGGGTACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATCGATGGC 250
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                                                                             KLYSNER S.
NIELSEN F S.
BRATT T.
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                  AA030459.
                                                             MOURITSEN
                                                             VOLDBORG B. MOURITSEN S.
                                                                                                       PHARMEXA AS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGTTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAAAAAAAAAGTGTGGAGAAAAAAAGACGGAGAGTAAACCAATTCCTAGACTATCTGCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                protein;
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2001US-0331575P.
                                                                                                                                                    2002WO-DK000764.
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/note= "Tetanus |
817. .861
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                                                                                                                                                                                                                                                                              /*tag= b
/note= "Human
58. .861
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                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                 product=
                                                                                                                                                                                                        note= "Tetanus toxoid P2 epitope
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                                           Bratt
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                                                                                                                                                                                                                                                                                     peptide"
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RESULT 14
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ID AAA34
XX AAA34
XX AAA34
XX Z8-JU
XX Humar
XX Humar
XX Humar
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNFalpha) and methods for production of immunogenic analogues. The immunogenic analogue is useful for preparing a composition for treating inflammatory diseases, e.g., arthritis. It is also used in gene therapy. The present sequence is a variant DNA encoding a fusion construct which comprises 2 human interleukin 5 (IL5) monomers joined by diglycine linker and including terminally positioned tetanus toxoid epitopes p30 and P2. This sequence is used to illustrate the method of
                                                                     Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothicate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiaflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma; respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
                                                                                                                                                                                                                                             Human adenosine receptor related polynucleotide SEQ ID NO: 2546.
                                                                                                                                                                                                                                                                                                                           AAA34857;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 864 BP;
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                                                                                                                                                                                                                                                                                                                                                                AAA34857
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     composition for treating inflammatory diseases e.g. arthritis.
                                                                                                                                                                                                                                                                                   28-JUL-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheLeuGlyValIleAsnThrGluTrpThrProGluSer 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnVal 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGln 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGly
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                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGG
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61.95%
58.52%
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WO200009525-A2 Homo sapiens.

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Percent Similarity:
Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                 US-10-787-382-10 (1-115) x AAA34857 (1-816)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes a new composition comprising an antisense coligonucleotide (ON) with low adenosine (up to 15%), which targets nucleic acids involved in bronchoconstriction, allergies, and/or inflammation. The ON can have antiinflammatory, antiallergic, antiasthmatic, cyrostatic and analgesic activities. The compositions are useful for the treatment of diseases associated with inflammation, impaired airways, including lung disease and diseases whose secondary effects afflict the lungs of a subject. They can be used for treating e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), and cancers such as leukaemias, lymphomas, carcinomas, and cancers which may metastasise to the lungs, including breast and prostate cancer. The reduction of the adenosine content of the release of deoxyadenosine which activates adenosine receptors causing bronchoconstriction and inflammation. ANA32312 represent the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleotide sequences given in the sequence listing from the present invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185 sequences are also called SEQ ID NO:1 to 185, but the sequences differ from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to AAA33992) are specifically claimed ONs from the present invention. N.B. Sequences given in the disclosure of the present invention do not match up with their corresponding SEQ ID NO: sequences given in the sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstruction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 716; 1343pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 816 BP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           NO::
                                                                             231
                                                                                                                                                                                                                                       111 GAÄATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTÄCTCATCGAACT
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                                                                                                                                                                                            24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu
                                                                                                                                                                                                                                                                            4.
ACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGCCAAAAA
                  AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGlnLys
                                                                                                  CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu
                                                                                                                                                         CTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCACCAACTG
                                                                                                                                                                                                                                                            GluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHisArgThr
                                                                           TGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGGGGGT 290
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356.00
76.79%
62.50%
58.36%
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Matches:
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Mismatches:
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4 GluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHisArgThr GAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCATCGAACT 170

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                                                         Query Match:
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Best Local Similarity:
US-10-787-382-10 (1-115)
                                                                                                                                                                                                 Pred. No.:
                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                    This sequence represents the human interleukin-5 (IL-5) encoding nucleotide sequence. Interleukin-5 is involved in eosinophilic inflammation and inflammatory disorders. The present invention relates to an IL-5 antisense oligonucleotide (see AAA13337) which inhibits the expression of IL-5. The antisense oligonucleotide has at least one non-natural internucleoside linkage. The oligonucleotide is able to inhibit IL-5 secretion in a dose dependent manner, and is useful for inhibiting IL-5 expression and therefore treating inflammatory diseases, asthma, allergic rhinitis, allergic conjunctivitis and inflammatory skin diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligonucleotide comprising non-natural internucleoside linkage, useful for inhibiting interleukin-5 expression and treating inflammatory diseases, asthma, allergic rhinitis, allergic conjunctivitis.
                                                                                                                                                                                                                                                                                 Sequence 816 BP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human interleukin-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (WELT/) WELTMAN J K. (KARI/) KARIM A S.
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RESULT 1 US-09-322-409-85 ; Sequence 85, Application US/09322409 ; Patent No. 6471957 ; GENERAL INFORMATION: APPLICANT: Sim, Gek-Kee APPLICANT: Sim, Gek-Kee APPLICANT: Sim, Gek-Kee APPLICANT: Wonderling, Ramani S. APPLICANT: Wonderling, Ramani S. ITITLE OF INVENTION: CANINE AND FELLINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1 CURRENT APPLICATION NUMBER: US/09/322,409 CURRENT FILING DATE: 1999-05-28 EARLIER FILING DATE: 1998-05-29 NUMBER OF SEQ ID NOS: 154 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 85 LENGTH: 345 TYPE: DNA CRGANISM: Canis familiaris FEALURE FILING DATE: 108-81 LENGTH: 345 COCATION: (1)..(345) US-09-322-409-85 Alignment Scores: Pard. No.: SCORE: 1.13e-81 Best Local Similarity: 100.00% Guery Match: 0 Ouery Mat

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GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee

APPLICANT: Yang, Shumin

APPLICANT: Yang, Shumin

APPLICANT: Wonderling, Ramani S.

APPLICANT: Wonderling, Ramani S.

TITLS OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUC:

TITLS OF INVENTION: CASINE AND FELINE IMMUNOREGULATORY PROTEINS, NUC:

TITLS OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILB REFERENCE: IM-2-C1

CURRENT APPLICATION NUMBER: US/09/322,409

CURRENT FILING DATE: 1999-05-28

EARLIER APPLICATION UNUMBER: 60/087,306

EARLIER FILING DATE: 1998-05-29

NUMBER OF SEQ ID MOS: 154

SOPTMANE: PATENTIN Ver. 2.0

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                CAAGTATTTCTTGGTGTAATAAACACCGAGTGGACACCGGAAAGT
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; TYPE: DNA
; ORGANISM: Canis f
; PEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(3
US-09-451-527-85
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 85
LENGTH: 345
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APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Monderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
EARLIER FILING DATE: 1998-05-29
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GlnValPheLeuGlyValIleAsnThrGluTrpThrProGluSer 115
                                                                                  ArgGlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeu
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GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Sang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANIME AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: CANIME AND USES THEREOF
FILE REPERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
IMMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
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; ORGANISM: Canis familiaris
US-09-451-527-87
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Best Local Similarity:
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US-09-451-527-87/c
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GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Ureitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS,
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
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GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee

APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.

APPLICANT: Dreitz, Matthew J.

APPLICANT: Monderling, Ramani S.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C1

CURRENT APPLICATION NUMBER: US/09/322,409

CURRENT APPLICATION NUMBER: 1999-05-28

EARLIER APPLICATION NUMBER: 60/087,306

EARLIER FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 154

SOFTMARE: Patentin Ver: 2.0

SEQ ID NO 84
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Best Local Similarity:
Query Match:
DB:
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; TYPE: DNA
; ORGANISM: Canis f
US-09-322-409-83
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                                                                                        US-09-322-409-84
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EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 83
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 84, Application Patent No. 6471957
                                                                                                       LENGTH: 402
TYPE: DNA
ORGANISM: Canis
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUC:
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER FILING DATE: 1998-05-28
EARLIER FILING DATE: 1998-05-28
SARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOFTWARE: PATENTIN Ver: 2.0
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Query Match:
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US-09-451-527-83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 83,
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                                                                                                                                                                                                                                                                                                           LENGTH: 402
TYPE: DNA
ORGANISM: Canis
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NUMBER OF SEQ ID NOS: 174
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 84
LENGTH: 402
TYPE: DNA
ORGANISM: Canis familiaris
US-09-451-527-84
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Best Local Similarity:
Query Match:
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APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Dreitz, Matthew J.
APPLICANT: MORETING, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/09/451,527
CURRENT FILING DATE: 1999-12-01
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 09/322,409
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
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Sequence 80, Application Us/09322409

Patent No. 6471957

GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.

ITILE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
SEARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
LENGTH. 610

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                                                                                  Sequence 82, Application Patent No. 6471957 GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
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; Sequence 80, Application US/09451527
; Patent No. 6482403
; GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
; CURRENT APPLICATION NUMBER: US/09/451,527
; CURRENT PILING DATE: 1999-12-01
; BARLIER APPLICATION NUMBER: 09/322,409
; EARLIER APPLICATION NUMBER: 09/322,409
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER APPLICATION NUMBER: 60/087,306
; EARLIER PILING DATE: 1998-05-29
; NUMBER OF SEQ ID NOS: 174
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 80
LENGTH: 610
TYPE: DNA
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; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis f
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TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/09/322,409
CURRENT FILING DATE: 1999-05-28
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER APPLICATION NUMBER: 60/087,306
EARLIER FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver: 2.0
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GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee

APPLICANT: Yang, Shumin

APPLICANT: Dreitz, Matthew J.

APPLICANT: Wonderling, Ramani S.

ITILE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/09/451,527

CURRENT FILING DATE: 1999-12-01

BARLIER APPLICATION NUMBER: 09/322,409

BARLIER FILING DATE: 1999-05-28

BARLIER FILING DATE: 1998-05-29

VENATURE FILING DATE: 1998-05-29

NUMBER OF SEQ ID NOS: 174

SOFTMARE: Patentin Ver. 2.0
                                                                                              ; LENGTH: 610
; TYPE: DNA
; ORGANISM: Canis 1
US-09-451-527-82
 Percent Similarity:
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Query Match:
DB:
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US-09-451-527-82/c
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ORGANISM: Canis
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Sequence 1, Application US/09371615A
Patent No. 6537781
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: IDEXX LABORATORIES
TITLE OF INVENTION: METHODS AND COMPOSITIONS CONTITLE OF INVENTION: CANINE INTERLEUKIN 5
FILE REFERENCE: 03604001700US00
CURRENT APPLICATION NUMBER: US/09/371,615A
CURRENT FILING DATE: 1999-08-10
NUMBER OF SEO ID NOS: 8
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LENGTH: 405
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Percent Similarity:
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APPLICANT: Weltman, Joel K.
APPLICANT: Weltman, Joel K.
APPLICANT: Weltman, Joel K.
APPLICANT: Weltman, Aftab S.
TITLE OF INVENTION: INHIBITION OF EOSINOPHILIC INFLAMMATION
FILE REFERENCE: 09998/00201
CURRENT APPLICATION NUMBER: U5/09/079,839
CURRENT FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 2
SOFTWARE: FastSEQ for Windows Version 3.0
             GENERAL INFORMATION:
APPLICANT: Lopez, Angel
APPLICANT: Vadas, Matthew
APPLICANT: Shannon, Frances
APPLICANT: Bastiras, Stan
APPLICANT: Hey, Allan W
TITLE OF INVENTION: AN INTERLEUKIN-5 ANTAGONIST
FILE REFERENCE: 9972Z
                                                                                                                                        Sequence 1, Application US/09180864 Patent No. 6465616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09079839 Patent No. 6048726
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CURRENT APPLICATION NUMBER: US/09/180,864
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ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                       LysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPhe 103
                                                                                                                                                                                                                                                                                                                                              ACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGCCAAAAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCATCGAACT
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; LOCATION: (4)
US-09-180-864-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT FILING DATE: 1999-04-12
PRIOR APPLICATION NUMBER: 08/591,438
PRIOR FILING DATE: 1994-07-28
NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
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104 LeuGlyValIleAsnThrGluTrpThrProGluSer
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331 CTTGGTGTAATGAACACCGAATGGATCATCGAATCC
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                                                                                                                                                                                                                                                                  LysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPhe 103
                                                                                                                                                                         CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu 63
                                                     ÁAGAAGTGTGGAGAAGAACGTCGTCGTGTAAACCAATTCCTGGACTACCTGCAAGAGTTT 330
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Search completed: August 7, 2005, 00:14:18
Job time: 104.068 secs

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-MODEL-frame+ p2n.model -DEV-xlp
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-DB=PublIshed_Applications_NA -QFMT=fastap -SUFFIX=rnpb -MINMATCH=0.1
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-TRANS=human40.cdi -L1GT=45 -DOCALIGN=200 -THR CORRE-pct -THR MXX=100
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-NGGUGG -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOD=10 -XGAPEXT=0.5
-FGAPOD=6 -FGAPEXT=7 -YGAPOD=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Listing first 45 summaries
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1: /cgn2_6/ptcdata/2/pubpna/USO7_PUBCOMB.seq:*

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3: /cgn2_6/ptcdata/2/pubpna/USO6_NEW PUB.seq:*

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SUMMARIES

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/09755633	ALIGNMENTS	-07-000-020	88	-10-641-643-12	US-10-846-911-14	-10-846-911-1	-10-846-911-	10-295-074-	-10-880-101A-8 -10-295-074-8	-10-929-182-4	-10-191-997-	-10-880-10	-91	10-787-38	09-755-633	US-10-787-382-19	-10-787-38:	09-755-633	10-787-38	-439-8	-10-262-43	-10-218-654-8	9-755-633-6 10-218-654-8	-09-755-63	-10-787-382-	-787-382-	-10-262-439-	10-218-65	S-10-218-654-	US-09-755-633-8	S-10-787-38	-10-787-382-	2-439-8	-10-218-654-	-10-218-654-8	S-09-755-633-	IIS-09-755-633-9	ID 1
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PRIOR APPLICATION NUMBER: 60/087,306
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1998-05-29

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LENGTH: 345
; TYPE: DNA
ORGANISM: Canis famil
PEATURE:
; NAME/KEY: CDS
LOCATION: (1)..(345)
US-09-755-633-9
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US-09-755-633-11/c
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Pred. No.:
                                                                                                                                                                                                                                        Patent No. US20020127200A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Meber, Eric R.
                                                                                                                                                                                                                                                                                               Sequence 11, Application US/09755633 Patent No. US20020127200A1
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NUMBER OF SEQ ID NOS: 21
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-29
NUMBER: OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
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US-10-218-654-85
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                                              US-10-787-382-10 (1-115) x US-10-218-654-85 (1-345)
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Publication No. US20030099609A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Canis
FEATURE:
                                                                                                                                                                                                                                                                                                LENGTH: 345
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APPLICANT: Sin, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR FILING DATE: 1998-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 87
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
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Best Local Similarity:
Query Match:
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Publication No. US20030099609A1
GENERAL INFORMATION:
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                                                            CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC
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GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
ITILE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT APPLICATION NUMBER: US/09/451,527
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 85
LENGTH: 345
TYPE: DNA
ORGANISM: Canis familiaris
PEATURE:
NAME/KEY: CDS
1-0-262-439-85
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US-10-262-439-85
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Best Local Similarity:
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Publication No.
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No. US20030143196A1
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Sequence 87, Application US/10262439

publication No. US20030143196A1

GENERAL INFORMATION:

APPLICANT: Sim, Gek-Kee

APPLICANT: Yang, Shumin

APPLICANT: Wonderling, Ramani S.

APPLICANT: Wonderling, Ramani S.

TITLE OF INVENTION: ACID MOLECULES, AND USES THERBOF

FILE REFERENCE: IM-2-C2

CURRENT APPLICATION NUMBER: US/10/262,439

CURRENT APPLICATION NUMBER: US/09/451,527

PRIOR APPLICATION NUMBER: 09/322,409

PRIOR APPLICATION NUMBER: 09/32,409

PRIOR FILING DATE: 1999-05-28

PRIOR PILING DATE: 1999-05-29

NUMBER OF SEQ ID NOS: 174

SOFTWARE: Patentin Ver. 2.0
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US-10-262-439-87/C
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US-10-787-382-9
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Best Local Similarity:
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; ORGANISM: Canis familiaris
US-10-262-439-87
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Sequence 9, Application US/10787382
Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: McCall, Catherine A.
APPLICANT: Heber, Eric R.
APPLICANT: Heber, Eric R.
APPLICANT: Heber, Eric R.
APPLICANT: HOLD HOLD FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: CALID MOLECULES, AND USES THEREOF
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LENGTH: 345
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GENERAL INFORMATION:

APPLICANT: Yang, Shumin

APPLICANT: WcCall, Catherine A.

APPLICANT: WcCall, Catherine A.

APPLICANT: Weber, Eric R.

ITILE OF INVENTION: CANINE AND PELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF

FILE REFERENCE: IM-2-C1-C1

CURRENT FILING DATE: 2004-02-24

PRIOR APPLICATION NUMBER: US/09/755,633

PRIOR APPLICATION NUMBER: 09/322,409

PRIOR FILING DATE: 1999-05-28

PRIOR APPLICATION NUMBER: 60/087,306

PRIOR APPLICATION NUMBER: 60/087,306

PRIOR FILING DATE: 1998-05-29
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CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-29
PRIOR PILING DATE: 1999-05-29
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PATENTIN OS: 21
SOFTWARE: PATENTIN VET. 2.1
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TYPE: DNA
ORGANISM: Canis familiaris
FEATURE:
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LOCATION: (1)..(345)
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; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis f
US-09-755-633-7
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US-09-75-633-7

; Sequence 7, Application US/09755633

; Patent No. US20020127200A1
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; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-11
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Pred. No.:
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APPLICANT: Yang, Shumin

APPLICANT: McCall, Catherine A.

APPLICANT: Weber, Eric R.
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SOFTWARE: PatentIn Ver.
SEQ ID NO 11
                                                                                                                                             SEQ ID NO 7
                                                                                                                                                                TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REPERENCE: IM-2-C1-C1 CURRENT APPLICATION NUMBER: US/09/755,633

CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-29
PRIOR FILING DATE: 1998-05-29
NUMBER: 05-20,10 NOWS: 21
COETMADE: 05-20,11 NOWS: 21
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APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTITLE OF INVENTION: H-2-CLI W/09/755,633
CURRENT APPLICATION NUMBER: US/09/755,633
CURRENT FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR PILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
COPETANDE: Datastilly Var. 2.1
                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
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; ORGANISM: Canis
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US-09-755-633-8/c
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SEQ ID NO 8
LENGTH: 40
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                                                            CATCGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAAT 226
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APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND PELLINE IMMUNOREGULATORY PROTEINS, NUC:
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT APPLICATION NUMBER: US/09/322,409
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1998-05-28
PRIOR PILING DATE: 1998-05-29
INUMBER OF SEG ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
SEG ID NO 83
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Best Local Similarity:
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TYPE: DNA
; ORGANISM: Canis familiaris
US-10-218-654-83
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                                                                                    ArgGlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeu
                                                                                                                                   CACGGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAG
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APPLICANT: Sim, Gek Kee
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Yang, Shumin
APPLICANT: Ponderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELLINE IMMUNOREGULATORY PROTEINS, NUCLEIC
TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1
CURRENT APPLICATION NUMBER: US/10/218,654
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US/09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 154
SOPTWARE: Patentin Ver. 2.0
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US-10-218-654-84/c
; Sequence 84, Application US/10218654
; Publication No. US20030099609A1
; GENERAL INFORMATION:
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DB:
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Sequence 83, Application US/10262439
Publication No. US20030143196A1
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Dreitz, Matthew J.
APPLICANT: Wonderling, Ramani S.
APPLICANT: Wonderling, Ramani S.
APPLICANT: HONGERIAND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF FILE REFERENCE: IM-2-C2
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Sequence 84, Application US/10262439
Publication No. US20030143196Al
GENERAL INFORMATION:
APPLICANT: Sim, Gek-Kee
APPLICANT: Sim, Gek-Kee
APPLICANT: Yang, Shumin
APPLICANT: Wonderling, Ramani S.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C2
CURRENT APPLICATION NUMBER: US/10/262,439
CURRENT FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-29
NUMBER OF SEQ ID NOS: 174
SOFTMARE: Patentin Ver. 2.0
SEQ ID NO 84
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US-10-262-439-84/c
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Best Local Similarity:
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; TYPE: DNA
; ORGANISM: Canis familiaris
US-10-262-439-83
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CURRENT FILING DATE: 2002-09-30
PRIOR APPLICATION NUMBER: US/09/451,527
PRIOR FILING DATE: 1999-12-01
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 174
SOPTWARE: PATENTIN Ver. 2.0
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; LENGTH: 402
; TYPE: DNA
; ORGANISM: Canis f
US-10-262-439-84
                   Percent Similarity:
Best Local Similarity:
Query Match:
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TYPE: DNA
; ORGANISM: Canis familiaris
US-10-787-382-7
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DB:
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                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/787,382
CURRENT FILING DATE: 2004-02-24
PRIOR APPLICATION NUMBER: US/09/755,633
PRIOR FILING DATE: 2001-01-05
PRIOR APPLICATION NUMBER: 09/322,409
PRIOR FILING DATE: 1999-05-28
PRIOR FILING DATE: 1999-05-28
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 60/087,306
PRIOR APPLICATION NUMBER: 50/087,306
PRIOR FILING DATE: 1998-05-29
NUMBER OF SEQ ID NOS: 21
SOPTWARE: Patentin Ver. 2.1
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Publication No. US20040191868A1
GENERAL INFORMATION:
APPLICANT: Yang, Shumin
APPLICANT: McCall, Catherine A.
APPLICANT: Weber, Eric R.
TITLE OF INVENTION: CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES, AND USES THEREOF
FILE REFERENCE: IM-2-C1-C1
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Length:
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US-10-78	US-10-787-382-10 (1-115) x US-10-787-382-7 (1-402)
ğ	1 PheAlaValGluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThr 20
Db	58 TTTGCTGTAGAAAATCCCATGAATAGACTGGTGGCAGAGACCTTGACACTGCTCTCCACT 117
ঠ	21 HisargThrTrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsn 40
Db	118 CATCGAACTTGGCTGATAGGCGATGGGAACCTGATGATTCCTACTCCTGAAAATAAAAT 177
Ş	41 HisGlnLeuCysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAla 60
gb	178 CACCAACTGTGCATTAAAGAAGTTTTTCAGGGTATAGACACATTGAAGAACCAAACTGCC 237
Ś	61 HisGlyGluAlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGlu 80
Db	238 CACGGGGAGGCTGTGGATAAACTATTCCAAAACTTGTCTTTAATAAAAGAACACATAGAG 297
Ş	81 ArgGlnLysLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeu 100
Db	298 CGCCAAAAAAAAAGGTGTGCAGGAGAAAGATGGAGAGTGACAAAGTTCCTAGACTACCTG 357
Ś	101 GlnValPheLeuGlyVallleAsnThrGluTrpThrProGluSer 115
Db	358 CAAGTATTTCTTGGTGTAATAAACACCGAGTGGACACCCGAAAAGT 402
Search c	Search completed: August 7, 2005, 03:16:01 Job time : 479.55 secs
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Minimum
Maximum
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-MODBLE-frame+ p21.model -DEV=xlp
-Q-/cgn2_1/USPTO_spool_p/US10787382/runat_04082005_084752_19305/app_query.fasta_1.590
-Q=/cgn2_1/USPTO_spool_p/US10787382/runat_0.1 -LOOPCL-0 -LOOPEXT=0
-DB=EST -QFWT=fastap -SUFFIX.rst -MINMATCH=0.1 -LOOPCL-0 -LOOPEXT=0
-UNITS=bite -START=1 -ENDE-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DCCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFWT=pto -NORW=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US10787382_@CGN_1 1.6628_erunat_04082005_084752_19305 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -PGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Maximum Match 100%
Listing first 45 summaries
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AUTHORS
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The Institute for Genomic Research
Department of Eukaryotic Genomics,
Rockville, MD 20850, USA
                                                                                                                                                                                                                                                                      1 (bases 1 to 622)
Kirkness, B.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K.,
Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and
Venter, J.C.
                                                                                                                                                                                                                                                                                                                            Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
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CE331159
CE331159.1 GI:36147469
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                                                                                                             Tel: 301-838-0200
Fax: 301-838-0208
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                                                                                Class: shotgun
                                                                                                Email: ekirknes@tigr.org
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   /organism="Canis familiaris"
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/strain="Standard Poodle"
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CCR235404
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CR235404
BC98873727
AA6896772777
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                                                 Rockville, MD 20850,
This sequence was man
                                                                                              2 (bases 1 to 405)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Terriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Direct Submission
                                                                                                                                                                                                                  gene trios
Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                 Bukaryota, Metazoa, Chordata, Craniata, Vertebrat Mammalia, Butheria, Primates, Catarrhini, Hominid I (Dases 1 to 405)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Mertiera, S., Wang, G., Zheng, X.H., White, T.J., Sni Adams, M.D. and Cargill, M.
                                                                                Submitted (16-NOV-2003) Celera
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                               sequence was made by sequencing genomic based on alignment.
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/clone lib="Dog Library"
/note="Site 1: BstXI; Libraries were prepared
peripheral blood"
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Sninsky, J.J.,
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                             Contact: Daniela S. Gerhard, Ph.D.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK1 row: g column: 11
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1 (bases 1 to 456)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
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CD559532.1
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AGENCOURT 14497057 NIH_MGC 195 Homo
IMAGE:6971772 5', mRNA sequence.
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quality sequence stop: 456.
Location/Qualifiers
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|db_xef="taxon:9606"
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                                                                                                                                           CD559686 456 bp mRNA linear ES7
AGENCOURT 14497093 NIH MGC 195 Homo sapiens cDNA clone
IMAGE: 6971772 3', mRNA sequence.
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                                                                                                         CD559686
CD559686.1 GI:31585754
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                          Homo sapiens
                                                              Homo sapiens (human)
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/mol_type="mRNA"
/db_xref="taxon:9606"
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/clone lib="NIH MGC 195"
/note="Vector: pDNR-Dual; Site 1: loxP-SalI; Site 2:
loxP-HindIII; Clones from this library have been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissue_type="mixed"
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                                                                       187 ACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGCCAAAAA 128
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84 LysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPhe 103
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plate: IRBK1 row: g column: 11
High quality sequence stop: 456.
Location/Qualifiers
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National Institutes of Health, Mammalian Gene Collection (MGC)
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CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                   CygIleLygGluValPheGlnGlyIleAspThrLeuLygAsnGlnThrAlaHigGlyGlu 63
                                                                                                                                                                                                                 TGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGGGGT 188
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/(clone Ibb="NIMAGE:697172"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     On Jun 10, 2003 this sequence version replaced gi:31585755. Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892
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CD559687
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1 (Dases 1 to 470)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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/cloine="IMAGE:6971771"
/tissue_type="mixed"
/lab host="DHSA (T1 phage-resistant)"
/lab host="PHSA (T1 phage-resistant)"
/cloine_lib="NIH_MCC_195"
/note="Vector: pDNR-Dual; Site_1: loxP-Sall; Site_2:
/note="Vector: pDNR-Dual; Site_1: loxP-Sall; Site_2:
loxP-HindIII; Cloines from this library have been
PCR-amplified using gene-specific primers to contain the
PCR-amplified using gene-specific primers to contain the
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq1. Template for PCR is cDNA
derived from either pooled cytoplasmic polya RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Biosciances/Clointech and Washington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Frederick, MD 21702). For
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CD559533
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu 43
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Bldg. 31 Rm1DA07 Betheeda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
cDNA Library Preparation: Bhat Laboratory
cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBK1 row: g column: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
On Jun 10, 2003 this sequence version replaced
Contect: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 492)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAAAGTGTGGAGAAAGAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAAGAGTTT 81
                                                                                                                                                                                                                                                                                                                             e: IRBK1 row: g column: 10 quality sequence start: 14 quality sequence stop: 492.
Location/Qualifiers
/db xref="taxon:9606"
/clone="mMAGE:6971771"
/tissue_type="mixed"
/lab host="DH5A (T1 phage-resistant)"
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/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site 1: loxP-Sall; Site 2:
loxP-HindII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequence
                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                               . 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gi:31585601.
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Percent Similarity:
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Query Match:
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 458)
Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Heich, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Ugdin, T.B., Toshiy, Mt., S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Moramson, R.D., Mullahy, S.J., Bosak, S.A.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC066279
458 bp mRNA linear HTC 12-FE
Homo sapiens cDNA clone IMAGE:6971768, containing frame-shift
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC066279.1 GI:42490901
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCATCGAACT 181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAAAGTGTGGAGAAGAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAAGAGTTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        available from NCBI's RefSeq). Template for PCR is cDNA derived from either pooled cytoplasmic polyA RNA from 30 cells lines or pooled total RNA from 10 different tissues (from BD Biosciences/Clontech and Washington University). PCR products are directionally cloned into the loxP sites of the pDNR-Dual vector. Library constructed by Dr. Narayan Bhat, Earl Bere III and Hongling Liao (Gene Expression Laboratory, Research Technology Program, SAIC Frederick, NCI-Frederick, Frederick, MD 21702). For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 information on which gene each clone represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat a Note: this is a NIH_MGC Library."
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Score: Pred. No.: ORIGIN

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BC066279 LOCUS

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KEYWORDS SOURCE

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VERSION ACCESSION DEFINITION

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                                                                                                                                                                              150 CTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCACCAACTG
                             64
                                                                                                                              44
                                                                                                                                                                                                                        24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu 43
                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://lmage.llnl.gov Series: IRAK Plate: 172 Row: a Column: 15 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032 This clone has the following problem: frame shifted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA Library Preparation: Bhat Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
cDNA Sequencing by: Sequencing Group Heb Stanford Human Genome
DNA Sequencing by: Sequencing Group Heb Stanford, CA 94305
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
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Tissue Procurement: Narayan Bhat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A., Fahey,J., Helton,B., Ketteman,M., Madan,A., Rodrigues,S., Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y., Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,B.D., Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M., Butterfield,Y.S., Krzywinski,M.I., Skalaka,U., Smailus,D.E., Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A.,
AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGln-Ly 83
                                                                                                                                                                                                                                                                                                          GluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHisArgThr 23
                                                                                                         CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu 63
                                                                                                                                                                                                                                                                          GAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCATCGAACT
                                                                            TGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGGAGAGTCAAACTGTGCAAGGGGGGT 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 458)
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/mol_type="mRNA"
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/tissue_type="PCR rescued
/clone_lib="NIH_MGC_195"
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Klausner, R.D., Collins, F.S., Wagner, L., Sheamen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Glbbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrígues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Boutfard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodríguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smatlus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and Initial analysis of more than 15,000 full-length
human and mouse cDNA secuences
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390 TCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 426
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                                                                                                                                                                                                                                                                        Email: Cgapbs r@mail.nih.gov
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINI)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site: http://www-bhgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
                                          Clone distribution: MGC clone distribution information can be found through the I.M.A.G.R. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 172 Row: a Column: 16
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032
This clone has the following problem: frame shifted.
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Submitted (03-FBB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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BC066280.1
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Contact: MGC help desk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                         Unpublished (1999)

On Jun 10, 2003 this sequence version replaced gi:31585603.

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Narayan Bhat
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                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 463)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
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AGENCOURT 14496865 NIH MGC 195 Homo
IMAGE:6971769 5', mRNA sequence.
CD559535
                                                                                                                                                                                                                                                                                                                                                                                               CD559535.2 GI:38558950 EST.
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
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/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6971769"
/tissue_type="PCR rescued c
/clone_lib="NIH_MGC_195"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44 CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu 43
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High quality
                          CD559690
CD559690.2 GI:38453490
EST.
                                                                                                              467 bp mRNA linear ES' AGENCOURT 14496838 NIH MGC 195 Homo sapiens cDNA clone IMAGE:6971768 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                   TCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLY8ArgCy8AlaGlyGluArgTrpArgValThrLy8PheLeuAspTyrLeuGlnValPh 103
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Location/Qualifiers
sapiens (human)
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/clone_lib="NIH_MGC_195"
/note="Vector: pDNR-Dual; Site_1: loxP-SalI; Site_2:
/note="Vector: policit of the loxP sites
/note="Vector: policit of
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ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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/tissue_type="mixed"
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/mol_type="mRNA"
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                                                          CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu 63
AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGln-Ly 83
                                        TGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAAGGTCAAACTGTGCAAGGGGGGT 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE: 6971768"
/(clone="IMAGE: 6971768"
/lab host="DH5A (T1 phage-resistant)"
/lab host="DH5A (T1 phage-resistant)"
/(clone lib="NHH MGC 195"
/clone lib="NHH MGC 195"
/note="Vector: pDNR-Dual; Site_1: loxP-SalI; Site_2:
loxP-HindIII; Clones from this library have been
PCR-amplified using gene-specific primers to contain the
complete open reading frame (based on known gene sequences
available from NCBI's RefSeq). Template for PCR is CDNA
derived from either pooled cytoplasmic polyA RNA from 30
cells lines or pooled total RNA from 10 different tissues
(from BD Blosciences/Clontech and Washington University).
PCR products are directionally cloned into the loxP sites
of the pDNR-Dual vector. Library constructed by Dr.
Narayan Bhat, Earl Bere III and Hongling Liao (Gene
Expression Laboratory, Research Technology Program, SAIC
Frederick, NCI-Frederick, Prederick, MD 21702). For
information on which gene each clone represents, please
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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/mol_type="mRNA"
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On Jun 10, 2003 this sequence version replaced gi:31585757.
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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CD559689.2
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plate: IRBK1 row: g column: 08
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Tissue Procurement: Narayan Bhat
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1 (bases 1 to 473)
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// Mol Type="manual"
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// Clone="IMAGB:6971769"
// Lissue type="mixed"
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quality sequence start: 16
quality sequence stop: 473.
Location/Qualifiers
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                                                                                                              visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBK.preSV.dat
a Note: this is a NIH_MGC Library."
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   8.88e-34
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AUTHORS
TITLE
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US-10-787-382-10 (1-115) x CD559689 (1-473)
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                                                                                                                                                                                                                                                                                             Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-remail.nih.gov

Tissue Procurement: Narsyan Bhat

cDNA Library Preparation: Bhat Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LiNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: IRBK1 row: 9 column: 07
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103 eLeuGlyVallleAsnThrGluTrpThrProGluSer 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          203 ACTGTGGAAAGACTATTCAAAAACTTGTCCTTAATAAAGAAATACATTGACGGCCAAAAA 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     263 TGCACTGAAGAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGGGGT 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             323 CTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCACCAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGln-Ly
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 489)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1999)
On Jun 10, 2003 this sequence version replaced gi:31585604.
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quality sequence start: 17
quality sequence stop: 489.
Location/Qualifiers
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/tissue_type="mixed"
/tissue_type="mixed"
/lab_host="DH5A (Ti_phage-resistant)"
/clone_lib="NIH_MGC_195"
                                                                                                                                                                 organism="Homo sapiens"
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REFERENCE
AUTHORS
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ORGANISM
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BC069137
LOCUS
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Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausmer, R.D., Collins, F.S., Wagner, L., Shemmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC069137 817 bp mRNA linear HTC 26-AP Homo sapiens cDNA clone IMAGE:7216996, containing frame-shift
                                                                                                                                                                                          Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 817)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            information on which gene each clone represents, please visit our anonymous ftp site at ttp://image.llnl.gov/inage/rearrayed_plates/IRBK.preSV.dat a Note: this is a NIH_MGC Library."
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loxP-HindIII; Clones from this library have been
                                                                                                                                                                                                                                                           Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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JOURNAL
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REFERENCE
AUTHORS
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Query Match:
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Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakeeley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Ling, 124, 126, 126, 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                 171 CTGCTGATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCACCAACTG
                                                                                       231 TGCACTGAAGAAATCTTTCAGGGAATAGGCACACTGGAGAGTCAAACTGTGCAAGGGGGT 290
                                 64
                                                                                                                                      44
                                                                                                                                                                                                                                24 TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: Plate: Row: Column: 0
This clone has the following problem: frame shifted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA Sequencing by: Neurogenomics Research Lab, 200 B EMRB, University of Iowa, Iowa City, IA-52242 anup-madan@uiowa.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: MGC help desk
Email: Cgapbs-r@mail.nih.gov
Tisgue Procurement: Anup Madan, University of Iowa
CDNA Library Preparation: Anup Madan, University of Iowa
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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Submitted (16-APR-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH-MGC Project URL: http://mgc.nci.nih.gov
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jessica Fahey, Tim Nelson, Jae Goon Yoon and Anup Madan
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AlaValAspLysLeuPheGlnAsnLeuSerLeuIleLysGluHisIleGluArgGln-Ly |||:::::|||::: ||| ||
                                                                                                                     CysIleLysGluValPheGlnGlyIleAspThrLeuLysAsnGlnThrAlaHisGlyGlu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="IMAGE:7216996"
/tissue type="Synthetic of the Tib="NIH MGC 243"
/clone Tib="NIH MGC 243"
/lab_host="TOP10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Perrieras, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and order
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genomic survey
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pan troglodytes (chimpanzee)
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CTGCTAATAGCCAATGAGACTCTGAGGATTCCTGTTCCTGTACATAAAAATCACCAACNN 186
                                                                                                            TrpLeuIleGlyAspGlyAsnLeuMetIleProThrProGluAsnLysAsnHisGlnLeu 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   eLeuGlyVallleAsnThrGluTrpThrProGluSer 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAAAGTGTGGAGAAGAAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAAGAGTT
                                                                                                                                                    GAAATTCCCACAAGTGCATTGGTGAAAGAGACCTTGGCACTGCTTTCTACTCCATCGAACT 126
                                                                                                                                                                               GluAsnProMetAsnArgLeuValAlaGluThrLeuThrLeuLeuSerThrHisArgThr 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTGGTGTAATGAACACCGAGTGGATAATAGAAAGT 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sLysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPh 103
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DN/db_xref="taxon:9598"
                                                                                                                                                                                                                                                                                                                                                                                                                          'locus_tag="HCM4418"
                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="IL5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Pan troglodytes"
                                                                                                                                                                                                                                                              4.28e-33
337.00
74.11%
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Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buctow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsish, F.,
Distchenko, L., Marusins, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bossk, S.A., McEwan, P.J.,
McKerran, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E. J., Lu, X., Gibbs, R.A.,
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Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Bouffard, G.G., Blakesley, R. W., Touchman, J. W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnertion and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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                         Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Narayan Bhat
Tissue Procurement: Narayan Bhat
CDNA Library Preparation: Bhat Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site:

http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
                                                                                                                                                                                                                                                                                                                                                           Submitted (03-FEB-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 456)
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456 bp mRNA linear HTC 12-FEB-2004
Homo sapiens cDNA clone IMAGE:6971770, containing frame-shift
                                                                                                                                                                                                                                                                         NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
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Dickson, M.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSBATGCYSAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPhe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAAAGTGTGGAGAAGAAGACGGAGAGTAAACCAATTCCTAGACTACCTGCAAGAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 456)
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Schmutz, J., Grimwood, J., Rodriquez,
   Α.,
      and Myers,
                                                                                           Genome
CA 943
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```

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 172 Row: a Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 28559032 This clone has the following problem: frame shifted.

found

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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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84 LysArgCysAlaGlyGluArgTrpArgValThrLysPheLeuAspTyrLeuGlnValPhe 103
                                                       210
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/clone="IMAGE:6971770"
/tissue type="PCR rescued clones"
/clone_Tib="NIH MGC_195"
/lab host="PH10B"
/note="Vector: pDNR-Dual"
                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                   2.23e-32
332.00
75.89%
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54.43%
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Matches:
Conservative:
Mismatches:
Indels:
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Search completed: August 7, 2005, 00:10:30 Job time : 2418 secs

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